TRAINING SUPPORT PACKAGE (TSP)

TSP Number / Title	W223 / Conduct Movement
Effective Date	1 Oct 2003
Supersedes TSP(s) / Lesson(s)	F200, Field Training Exercise, Mar 00. F200-RC Field Training Exercise, Jun 01.
TSP Users	400-00-PLDC Primary Leadership Development Course 400-00-PLDC PH II, Primary Leadership Development Course Phase II
Proponent	The proponent for this document is the Sergeants Major Academy.
Improvement Comments	Users are invited to send comments and suggested improvements on DA Form 2028, *Recommended Changes to Publications and Blank Forms.* Completed forms, or equivalent response, will be mailed or attached to electronic e-mail and transmitted to: COMDT USASMA ATTN ATSS D BLDG 11291 BIGGS FIELD FT BLISS TX 79918-8002 Telephone (Comm): (915) 568-8875 Telephone (DSN): 978-8875 e-mail: atss-dcd@bliss.army.mil
Security Clearance / Access	Unclassified
Foreign Disclosure Restrictions	FD5. This product/publication has been reviewed by the product developers in coordination with the USASMA foreign disclosure authority. This product is releasable to students from all requesting foreign countries without restrictions.

PREFACE

Purpose

This Training Support Package provides the instructor with a standardized lesson plan for presenting instruction for:

Task Number	Task Title
Individual	
071-326-0515	Select a movement route using a map
071-329-1006	Navigate from one point on the ground to another point while dismounted.

This TSP Contains

TABLE OF CONTENTS

Conduct Movement
W223 / Version 1
10 Jan 2003

SECTION I. ADMINISTRATIVE DATA

All Courses Including This Lesson

Course Number	Version	Course Title
400-PLDC	1	Primary Leadership Development Course

Task(s) Taught(*) or Supported

Task Number	Task Title
Individual	
071-326-0515 (*)	Select a movement route using a map
071-329-1006 (*)	Navigate from one point on the ground to another point while dismounted.

Reinforced Task(s)

Task Number	Task Title
071-329-1000	Identify topographic symbols on a military map
071-329-1001	Identify terrain features on a map
071-329-1002	Determine Grid Coordinates of a Point on a Military Map
071-329-1003	Determine a magnetic azimuth using a lensatic compass
071-329-1004	Determine the elevation of a point on the ground using a map
071-329-1005	Navigate from one point on the ground to another point while dismounted
071-329-1008	Measure Distance on a Map
071-329-1009	Convert azimuths
071-329-1012	Orientate a map to the ground by map-terrain association

Academic Hours

The academic hours required to teach this lesson are as follows:

	Resident Hours/Methods	
	2 hrs 35 mins	/ Conference / Discussion
	25 mins	/ Demonstration
	3 hrs	/ Practical Exercise (Performance)
Test	0 hrs	
Test Review	0 hrs	
Total Hours:	6 hrs	

Test Lesson Number

	Hours	Lesson No.
Testing (to include test review)		N/A

Prerequisite Lesson(s)

Lesson Number	Lesson Title
W222	Combat Orders

Clearance Access

Security Level: Unclassified
Requirements: There are no clearance or access requirements for the lesson.

Foreign Disclosure Restrictions

FD5. This product/publication has been reviewed by the product developers in coordination with the USASMA foreign disclosure authority. This product is releasable to students from all requesting foreign countries without restrictions.

References

Number	Title	Date	Additional Information
FM 21-60	VISUAL SIGNALS	30 Sep 1987	
FM 21-75	COMBAT SKILLS OF THE SOLDIER	03 Aug 1984	
FM 3-25.26	MAP READING AND LAND NAVIGATION	20 Jul 2001	
FM 7-8	INFANTRY RIFLE PLATOON AND SQUAD	22 Apr 1992	
STP 21-1-SMCT	SOLDIER'S MANUAL OF COMMON TASKS SKILL LEVEL 1	01 Apr 2003	
STP 21-24-SMCT	SOLDIER'S MANUAL OF COMMON TASKS (SMCT) SKILL LEVELS 2-4	01 Apr 2003	

Student Study Assignments

Before Class--

- Study Student Handouts 2, 4, 6, and 7.
- Read Student Handouts 3, 5, and 8.

During Class--

- Participate in classroom discussion.

After Class--

- Turn in recoverable references after the examination for this lesson.

Instructor Requirements

1:8, SSG, PLDC graduate, ITC, and SGITC qualified.

Additional Support Personnel Requirements

Name	Stu Ratio	Qty	Man Hours
None			

Equipment Required for Instruction

ID Name	Stu Ratio	Instr Ratio	Spt	Qty	Exp
1005-01-128-9936 RIFLE 5.56 MILLIMETER: M16A2	1:8	1:8	No	1	No
441-06 LCD Projection System	1:8	1:8	No	1	No
559359 SCREEN PROJECTION	1:8	1:8	No	1	No
5820-00-T81-6161 VCR	1:8	1:8	No	1	No
673000T101700 PROJECTOR, OVERHEAD, 3M	1:8	1:8	No	1	No
702101T134520 DELL CPU, MONITOR, MOUSE, KEYBOARD	1:8	1:8	No	1	No
703500T102257 DESKTOP/EPSON PRINTER	1:8	1:8	No	1	No
7110-00-T81-1805	1:8	1:8	No	1	No

	DRY ERASE BOARD					
	7510-01-424-4867 EASEL, (STAND ALONE) WITH PAPER	1:8	1:8	No	1	No
	E63317 COMPASS, LENSATIC	1:1	1:1	No	0	No
	*GTA-5-2-1 Grid Coordinate Scale	1:8		No	32	No
	GTA-5-2-12 GRID COORDINATE SCALE	1:1	1:8	No	1	No
	LCE LCE with two canteens of water	1:1	1:8	No	0	No
	*SERIES Map Sheet, Local Area	1:8		No	32	No
	*SERIESV79 Tenino Mapsheet 1:50,000	1:8		No	32	No
	SERIESV791 TENINO MAP SHEET 1:50,000	1:1	1:8	No	1	No
	SNV1240262544393 36 - INCH COLOR MONITOR W/REMOTE CONTROL AND LUXOR STAND	1:8	1:8	No	1	No
	SOFTWARE-1 MS-DOS, LATEST GOVERNMENT APPROVED VERSION	1:8	1:8	No	1	No
	SOFTWARE-2 WINDOWS XP, LATEST GOVERNMENT APPROVED VERSION	1:8	1:8	No	1	No

* Before Id indicates a TADSS

Materials Required

Instructor Materials:

SGL Materials--

- TSP.
- Any equipment required by the NCOA's SOP.

Student Materials:

- Advance sheet.
- Pen or pencil and writing paper.
- Any materials required by the NCOA's SOP.

Classroom, Training Area, and Range Requirements

CLASSROOM (40X40 PER 16 STUDENTS)
FIELD SITE 8 ACRES

Ammunition Requirements

Id	Name	Exp	Stu Ratio	Instr Ratio	Spt Qty

None

Instructional Guidance

NOTE: Before presenting this lesson, instructors must thoroughly prepare by studying this lesson and identified reference material.

Before Class--

- Read and study all TSP material and be ready to conduct the class.
- This TSP has questions throughout to check on learning or generate discussion among the group members. You may add any questions you deem necessary to bring a point across to the group or expand on any matter discussed.
- You must know the information in this TSP well enough to teach from it, not read from it.
- This TSP presents references at the beginning of some of the paragraphs. This allows you to inform your students of where they would look in the reference to follow your instruction.

During Class--

- Conduct the class in accordance with this TSP.

After Class--

- Collect all recoverable materials after the examination for this lesson.

NOTE: The students will need four M16s or Rubber M16s for every eight students for demonstration of Learning Step Activity 1, to Enabling Learning Objective 2, high crawl, low crawl, and rush.

Proponent Lesson Plan Approvals

Name	Rank	Position	Date
/S/ Joralmon, Grace /T/ Joralmon, Grace	CIV	Training Specialist	01 OCT 03
/S/ Barnes, Ronnie G. /T/ Barnes, Ronnie G.	MSG	Course Chief	01 OCT 03
/S/ Lawson, Brian H. /T/ Lawson, Brian H.	SGM	Chief, NCOES	01 OCT 03
/S/ Mayo, John /T/ Mays, Albert J.	SGM	Chief, CDDD	01 OCT 03

SECTION II. INTRODUCTION

Method of Instruction: Conference / Discussion
Technique of Delivery: Small Group Instruction (SGI)
Instructor to Student Ratio is: 1:8
Time of Instruction: 5 mins
Media: None

Motivator

Regardless of your MOS or job assignment, you may find yourself in a situation where you will lead soldiers in combat. This lesson provides you with some basic techniques and procedures used to employ a squad-size element in combat. These are basic techniques and procedures that have stood the test of time. Should you find yourself in a combat situation, what you learn here may mean the difference between living and dying for you and your soldiers. Prepare yourself to meet this challenge.

Terminal Learning Objective

NOTE: Inform the students of the following Terminal Learning Objective requirements.

At the completion of this lesson, you [the student] will:

Action:	Lead a team/squad in dismounted movement.
Conditions:	In a classroom environment culminating in a situational training exercise and given a team/squad of soldiers.
Standards:	Led a team/squad in a selected route while dismounted using different formations and movements with visual signals; enforced detection procedures and crossed a danger area IAW FM 7-8, FM 21-60, FM 3- 25,26, STP 21-24 SMCT, STP 21-1-SMCT and FM 21-75. **NOTE:** There are no scheduled breaks identified in this TSP due to time spent during PEs and demonstrations. SGLs will allow students a ten minute break as the situation presents itself, approximately every 50 minutes.

Safety Requirements

Local SOPs.

Risk Assessment Level

Low

Environmental Considerations

NOTE: It is the responsibility of all soldiers and DA civilians to protect the environment from damage.
None

Evaluation

You will take a written examination. The examination will contain questions from this lesson. You must correctly answer 70 percent or more of the questions on the examination to receive a GO.

NOTES:

- Inform the students where and when their examination will take place as posted on the training schedule and when they will receive feedback on the test. Include any retest information.
- Inform the students that they must turn in all recoverable reference material after the examination.

Instructional Lead-In

This TSP will provide you with a basic knowledge of moving a team/squad--using arm-and-hand signals--in the appropriate team/squad movements and formation based on the tactical situation. You will use what you learn today during the end of course situational training exercise (STX).

SECTION III. PRESENTATION

NOTE: Inform the students of the Enabling Learning Objective requirements.

A. ENABLING LEARNING OBJECTIVE

ACTION:	Select a movement route using a map.
CONDITIONS:	Given an operation or fragmentary order, a 1:50,000 scale military map, and a compass.
STANDARDS:	Selected a route that: • Took advantage of maximum cover and concealment. • Ensured observation and fields of fire for the overwatch or fire support elements. • Allowed positive control of all elements. • Accomplished the mission quickly without unnecessary or prolonged exposure to enemy fire. IAW, FM 3-25.26 (SH-2) and STP 21-24-SMCT, Task: 1 (SH-7).

1. Learning Step / Activity 1. Map Route Selection

Method of Instruction: Conference / Discussion
Technique of Delivery: Small Group Instruction (SGI)
Instructor to Student Ratio: 1:8
Time of Instruction: 30 mins
Media: VGT-1 and VGT-2

Military cross-country navigation is intellectually demanding because it is imperative that the unit, crew, and vehicle survive and successfully complete the move in order to accomplish its mission. However, the unnecessary use of a difficult route makes navigation too complicated. It creates more noise when proceeding over it and causes wear and tear on equipment and personnel. Using difficult routes can also increase the need for recovery operations, needlessly complicate recovery operations, and waste scarce time. On receipt of a tactical mission, the leader begins his troop-leading procedures and makes a tentative plan. He bases the tentative plan on a good terrain analysis.

Ref: SH-2 (FM 3-25.26), page SH-2-2, para 11-4 and page SH-2-5, para 11-5

There are four steps to land navigation:

Step 1. Know where you are.

Step 2. Plan the route.

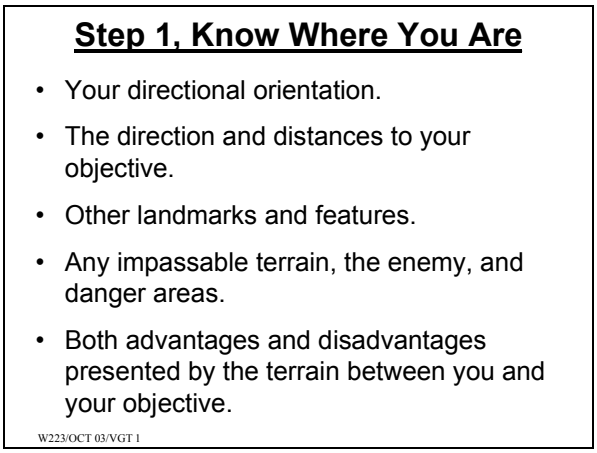
Step 3. Stay on the route.

Step 4. Recognize the objective.

Ref: SH-2 (FM 3-25.26), page SH-2-5 and SH-2-6, para 11-5

Step One: Step one is plain and simple, you must know where you are on the ground at all times. You must know the following about where you are.

SHOW VGT-1, STEP 1, KNOW WHERE YOU ARE



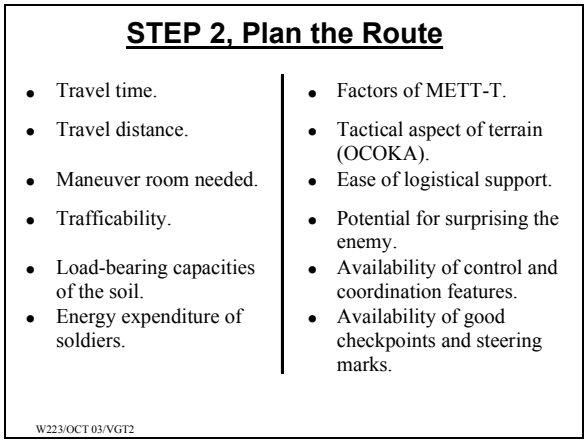
Ref: SH-2 (FM 3-25.26), page SH-2-5, para 11-5a

You can only accomplish step one by knowing how to read a map and recognizing/identifying specific terrain and other features. You have to determine and estimate direction; pace, measure, and estimate distances; and plot and estimate a position by resection.

REMOVE VGT-1

Step 2, Plan the Route: The route you plan will depend upon the size of the unit you are leading. In your instance, you will be leading a section or a squad. Also the route depends on the length and type of movement you will conduct during your movement. You must consider the factors on VGT-2 when selecting the route or routes you will follow.

SHOW VGT-2, STEP 2, PLAN THE ROUTE



Ref: SH-2 (FM 3-25.26), page SH-2-5, para 11-5b

NOTE: Ask the students why the factors listed on the VGT are important for planning their route.

What all this means is that the route you select must come from careful map study; it should address the requirements of the mission, tactical situation, and time available. The route must also provide for ease of movement and navigation.

REMOVE VGT-2

QUESTION: FM 3-25.26 talks about three route-selection criteria that are important for small-unit movements when planning a route. What are they?

ANSWER: Cover, concealment, and availability of reliable checkpoint features.

Ref: SH-2 (FM 3-25.26), page SH-2-5, para 11-5b

Availability of reliable checkpoint features is more critical when selecting a route that you must cover during night operations. The degree of visibility and ease of recognition are the keys to the proper selection of these features.

Ref: SH-2 (FM 3-25.26), page SH-2-6, para 11-5b(1)

QUESTION: What is cover?

ANSWER: Cover is protection from the effects of fire.

Ref: SH-2 (FM 3-25.26), page SH-2-2 and 4, para 11-4a(2), and para 11-4b(3)(c)

When planning your route, you must take advantage of everything the terrain offers to protect and cover your squad, especially if you are beyond the FEBA

(Forward Edge of the Battle Area). You must also consider the enemy's weapon capabilities and the known or suspected enemy emplacements. You must visualize a cross section of the terrain and determine where the enemy will not be able to place effective direct fire on your route. You accomplish this by using every ravine or depression in the ground you can, or even the slope of the land.

Ref: SH-7 (STP 21-24-SMCT), Task: 1, pages SH-7-2, and SH-7-3

QUESTION: What is concealment?

ASNWER: Concealment is protection from observation.

Ref: SH-2 (FM 3-25.26), page SH-2-2, para 11-4a(2) and 11-4b(3)(c)

During your study of the map, you must consider concealment not only on the ground but from the air as well. If you are in vehicles, you have to consider the dust or exhaust from the vehicles, they can reveal you to the enemy.

Ref: SH-7 (STP 21-24-SMCT), Task: 1, page SH-7-3, para 1c (2)

QUESTION: What are the best checkpoint features?

ANSWER: Linear features that cross the route?

Ref: SH-2 (FM 3-25.26), page SH-2-5, para 11-5b(2)

Perennial streams, hard top roads, ridges, valleys, railroads, and power transmissions lines are examples of good checkpoints. Next, it is best to select features that represent elevation changes of at least two contour intervals such as hills, depressions, spurs, and draws. Do not depend on cultural features and vegetation because they are most likely to have changed since the map's last revision. Be alert to see and recognize the checkpoints you identified on your map. It is especially important to recognize the checkpoints along the route to help prevent mistakes while navigating your route.

Traveling along a valley floor or near the crest (not on) of a ridgeline, usually offers easy movement, good navigation checkpoints, and sufficient cover and concealment. It is best to follow terrain features whenever possible and not to fight them.

Ref: SH-2 (FM 3-25.26), page SH-2-6, para 11-5b (2 thru 5)

You will move depending on the probability of enemy contact. If your route takes you into an area where you expect enemy contact, you have to plan your route where your overwatch or fire support positions can provide cover fire for the team that is moving. The positions must have good observation and field of fire. Weapons must have a good observation to fire at known or suspected enemy position along your movement route. You must have observation to control the maneuver of your elements if they make contact.

Your route must give your overwatch teams the best fields of fire; without them, your weapons will not be as effective. They must be in position to provide suppressive fires immediately. Overwatch teams must be able to see your route and fire in your support all the way to your objective.

Select routes that provide the most favorable tactical advantage and meet mission requirements. If enemy air is active or enemy ground forces are in the area of the route, take maximum advantage of cover and concealment. If speed of movement is critical, the route should be over the most easily negotiable terrain, avoiding difficult obstacles. The route should include movement from one easily distinguishable terrain feature to another.

When ordered to move, you must check the terrain based on the above considerations and select the quickest and safest route.

Ref: SH-7 (STP 21-24-SMCT), Task: 1, page SH-7-3, para 1b thru 4

Step 3, Stay on the Route: You can stay on your correct route by staying on your compass reading. Also, by recognizing the various checkpoints or landmarks from the map in their anticipated positions and sequences, as you pass them (terrain association). These are checkpoints and landmarks that you identified while studying your map and planning the route. The best way to stay on the route is by using both compass readings and terrain association.

Ref: SH-2 (FM 3-25.26), page SH-2-6, para 11-5c

Step 4, Recognize the objective: Your final destination is rarely a highly recognizable feature such as a dominant hilltop or road junction. Soldiers seldom miss these types of features. They are often dangerous places for soldiers to occupy. The relatively small, obscure place is most likely the destination.

During the navigation, one minor error may cause a squad to miss its target/destination.

Ref: SH-2 (FM 3-25.26), page SH-2-6, para 11-5d

QUESTION: How can a team travel over unfamiliar terrain and know when it reaches its destination?

ANSWER: Select a recognizable checkpoint reasonably close to the destination.

Ref: SH-2 (FM 3-25.26), page SH-2-6, para 11-5d

Once you find the recognizable terrain feature near your final destination, plan a short, fine-tuned last leg from the new *expanded objective* to the final destination. For example, you may be able to plan and execute the move as a series of sequenced movements from one checkpoint or landmark to another using both the terrain and a compass to keep you on the correct course. Finally, after arriving at the last checkpoint, you might follow a specific compass azimuth and pace off the relatively short, known distance to the final, pinpoint destination. You can also use this procedure, known as **point navigation**, for short movement out from a unit position to an observation point or a coordinate point.

Ref: SH-2 (FM 3-25.26), page SH-2-6, para 11-5d

Special-purpose maps and aerial photographs can assist you in selecting your route. If those aids are available, use them to ensure that you have the most current information.

Map reconnaissance, however, is not a substitute for ground reconnaissance. If time is available and the tactical situation permits, reconnoiter the route that you have to move over.

Ref: SH-7 (STP 21-24-SMCT), Task: 1, page SH-7-3, para 4

QUESTION: When establishing checkpoints on your route, what are the best checkpoints to look for, and give two examples?

ANSWER: Linear features that cross the route, e.g., perennial streams, hard top roads, ridges, valleys, railroads, and power transmission lines.

Ref: SH-2 (FM 3-25.26), page SH-2-6, para 11-5b (2)

QUESTION: What are the four steps to land navigation?

ANSWER:
1. Know where you are.
2. Plan the route.
3. Stay on the route.
4. Recognize the objective.

Ref: SH-2 (FM 3-25.26), pages SH-2-5 and 2-6, para 11-5a thru 11-5d

QUESTION: Why, and what is the advantage of selecting a checkpoint reasonably close to the final destination?

ANSWER: Since most objectives are rarely a highly recognizable feature, they may be more difficult to find. By selecting a checkpoint that is easily recognizable in the area close to your objective, you may conduct a procedure called point navigation. That is, you plan a short, fine-tuned last leg by following a specific compass azimuth and pacing off the relatively short, known distance to the final, pinpoint destination.

Ref: SH-2 (FM 3-25.26), page SH-2-6, para 11-5d

Break: Time: 00:50 to 01:00

2. Learning Step / Activity 2. Select a movement route using a map.

Method of Instruction: PE
Technique of Delivery: Small Group Instruction (SGI)
Instructor to Student Ratio: 1:8
Time of Instruction: 30 mins
Media: PE-1

Conduct PE-1, see Appendix C.

NOTE: PE sufficed as a check on learning.

B. ENABLING LEARNING OBJECTIVE

ACTION:	Demonstrate fire team and squad movement techniques while dismounted.
CONDITIONS:	In a classroom and field environment culminating in an STX and given a team/squad of soldiers.
STANDARDS:	Demonstrated the basic fundamentals of movement and selected the proper movement formation and techniques IAW FM 7-8 (SH-4) and FM 21-75 (SH-3).

1. Learning Step / Activity 1. Movement Fundamentals

Method of Instruction:	Conference / Demonstartion
Technique of Delivery:	Small Group Instruction (SGI)
Instructor to Student Ratio:	1:8
Time of Instruction:	30 mins
Media:	VGT-3 and VGT-4

Movement Fundamentals

NOTE: Portions of the ELO should take place outside to demonstrate the different crawls described in this ELO. There is a PE following ELO 3 that will cover other points of instruction in this ELO.

You are a squad leader or team leader in a combat environment. The situation separated your squad/team from your unit and you are on your own. Your task, move from one location to another. Regardless of your mission or situation, you need to leave one area and get to another. What is the best way for you to move your team/squad? This is what we are going to talk about. We'll start our discussion with the basic fundamentals of movement.

NOTE: Tell students to turn to SH-4, FM 7-8, page SH-4-15, and SH-3, FM 21-75, page SH-3-2.

QUESTION: FM 7-8 states that there are five fundamentals of movement and FM 21-75 lists an additional fundamental. What are those fundamentals, and why are they important?

ANSWER:

1. FM 7-8. Move on covered and concealed routes: This reduces exposure to enemy observation. This type of movement also limits your use of terrain that can restrict your movement.
2. FM 7-8. Avoid likely ambush sites: This reduces unnecessary risks. Ambushes can be very deadly and give the enemy the advantage.
3. FM 7-8. Enforce camouflage, noise, and light discipline: By enforcing these disciplines, you reduce the chance of detection and increase your chance of surprising the enemy.
4. FM 7-8. Maintain all-round security, to include air guards: Security provides you with early warning and keeps the leader informed of enemy activity.
5. FM 7-8. Use formations and movement techniques based on mission, enemy, terrain, troops and time available (METT-T): When you choose the movement formation/technique, you choose it for control, flexibility, and security.
6. FM 21-75. Do not move directly forward from covered positions: This will reduce skylining (your exposure to enemy fire) and will keep the enemy from pinpointing your position.

Ref: SH-4 (FM 7-8), pages SH-4-2 thru SH-4-15; SH-3 (FM 21-75), pages SH-3-2 thru SH-3-5

QUESTION: Other than walking, there are three other methods of individual movement, what are they?

NOTE: Call on a student to answer and to demonstrate the method. You will discuss later in the lesson when to use these methods of movement.

ANSWER:

1. Low crawl
2. High crawl
3. Rush

Ref: SH-3 (FM 21-75), pages SH-3-2 thru SH-3-4, para Methods of Movement

You learned in your reading assignments that a movement technique is the manner in which a squad uses to traverse terrain. There are three movement techniques.

QUESTIONS: What are the three movement techniques?

ANSWER:

1. Traveling
2. Traveling Overwatch
3. Bounding Overwatch

Ref: SH-4 (FM 7-8), page SH-4-5, para 2-10a(1) thru (3)

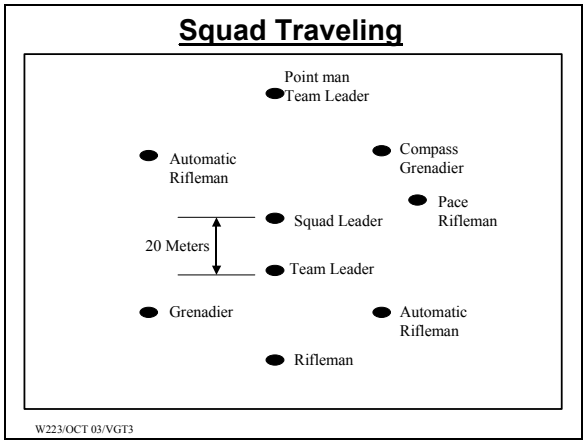
You will determine which movement technique to use based on the likelihood of enemy contact. You have to decide if enemy contact is not likely, possible, or expected.

QUESTION: What type movement do you use when enemy contact is not likely?

ANSWER: Traveling.

Ref: SH-4 (FM 7-8), page SH-4-6, para 2-10a (1)

SHOW VGT-3, SQUAD TRAVELING



Ref: SH-4 (FM 7-8), page SH-4-7, para 2-10a(1)

When you need to move quickly and there's no reason to believe the enemy is in the area, use traveling. When traveling, one fire team follows about 20 meters behind the other fire team. The squad leader positions himself where he can control movement and navigation of both fire teams.

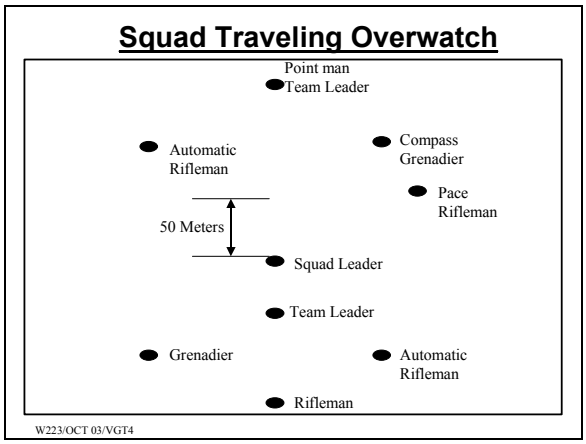
REMOVE VGT 3

QUESTION: What type of movement do you use when enemy contact is possible?

ANSWER: Traveling overwatch.

Ref: SH-4 (FM 7-8), page SH-4-6, para 2-10a(2)

SHOW VGT-4, SQUAD TRAVELING OVERWATCH



In traveling overwatch the trail team follows the lead team by about 50 meters. The intent is to prevent the entire element from being engaged by the enemy.

The squad leader positions him about 50 meters behind the lead team and leads the trail team. It is important to note that distances between formations and the location of the squad leader in the formation are guides. Actual distances between formations will depend on terrain, weather, and visibility. The leader's location will depend on his ability to control movement, navigation, and the activity of his unit. There are no hard and fast rules for every situation.

Ref: SH-4 (FM 7-8), page SH-4-6, para 2-10a (2)

REMOVE VGT-4

QUESTION: What type of movement technique do you use when you expect enemy contact?

ANSWER: Bounding overwatch.

Ref: SH-4 (FM 7-8), page SH-4-7, para 2-10a(3)

You use bounding overwatch when you believe the enemy is nearby, when danger is imminent, or when crossing a large open danger area. In bounding overwatch, one fire team moves forward (bounds) while the other team overwatches from a position where it can best support the bounding team by fire. The overwatch team must control the route that the bounding team will use. A bound is usually no more than 150 meters forward of the overwatching team or the limit of effective small arms fire. The lead fire team overwatches first. Each soldier takes up a position that provides cover, concealment, and a good field of fire. Depending on the amount of cover and concealment, the bounding team moves all at once, singly, or in pairs by short rushes or crawling from position to position. The squad leader normally stays with the overwatching team. When your group has five soldiers or less, it moves in one wedge and cannot conduct bounding overwatch by itself. It can overwatch another squad or it can bound, but it cannot do both at the same time.

Methods of Movement

Earlier we identified the methods of movement: walking, low crawling, high crawling, and rushing.

Move your soldiers by the best method for the situation. Usually, you'll move using short rushes, high crawl, or low crawl.

QUESTION: What are the advantages of the low crawl and when would you use it?

ANSWER: It gives your soldiers the lowest silhouette and you use it to cross where the concealment is very low and enemy fire or observation prevents you from getting up.

Ref: SH-3 (FM 21-75), pages SH-3-2 and SH-3-5

QUESTION: What are the advantages of the high crawl and when would you use it?

ANSWER: The high crawl allows you to move faster than the low crawl. It still provides you with a low silhouette. You use this crawl when there is good concealment but enemy fire prevents you from getting up.

Ref: SH-3 (FM 21-75), page SH-3-3

QUESTION: What are advantages of the rush and when would you use it?

ANSWER: The rush is the fastest way to move from one position to another when enemy fire allows brief exposure.

Ref: SH-3 (FM 21-75), page SH-3-3

Your soldiers can rush singly, in pairs, or by fire teams in 3 to 5 second rushes. Don't have your soldiers "hit the ground" in the open just because they have been up for 5 seconds. Have them look for positions that offer cover and concealment before starting their rush. Once they select a new position, they get up quickly and run to the new position. When the route is through an open area, they should rush by zigzagging. If necessary, they should hit the ground, roll right or left and then rush again. If they have been firing from one position for some time, they should crawl or roll from their position before rushing forward. This may fool the enemy who may have spotted their position.

CHECK ON LEARNING: Conduct a check on learning and summarize the ELO.

QUESTION: What are the six fundamentals of movement we mentioned?

ANSWER:
1. FM 7-8. Move on covered and concealed routes.
2. FM 7-8. Avoid likely ambush sites.
3. FM 7-8. Enforce camouflage, noise, and light discipline.
4. FM 7-8. Maintain all-round security, to include air guards.
5. FM 7-8. Use formations and movement techniques based on METT-T.
6. FM 21-75. Do not move directly forward from covered positions.

Ref: SH-4 (FM 7-8), pages SH-4-15; SH-3, FM 21-75, page SH-3-2

QUESTION: What are the three techniques of movement?

ANSWER:
1. Traveling.
2. Traveling overwatch.
3. Bounding overwatch.

Ref: SH-4 (FM 7-8), pages SH-4-5 thru SH-4-7, para 2-10a(1) thru (3).

QUESTION: Other than walking, what are the other three methods of individual movement?

ANSWER:
1. Low crawl.
2. High crawl.
3. Rush

Ref: SH-3 (FM 21-75), page SH-3-2 thru SH-3-3

Break: Time: 02:50 to 03:00

C. ENABLING LEARNING OBJECTIVE

ACTION:	Participate in fire team and squad formations, movement of the formations, and proper hand signals to move the formations.
CONDITIONS:	In a classroom environment culminating in a situational training exercise given a team/squad of soldiers.
STANDARDS:	Participated in fire team and squad formations and performed the hand signals to move these formations IAW FM 7-8 (SH-4) and FM 21-60 (SH-5).

1. Learning Step / Activity 1. Movement Formations

Method of Instruction: Conference / Discussion
Technique of Delivery: Small Group Instruction (SGI)
Instructor to Student Ratio: 1:8
Time of Instruction: 20 mins
Media: VGT-4 thru VGT-8

Movement Formations

Formations are arrangements of elements and soldiers in relation to each other. Fire teams and squads use formations for control, flexibility, and security. You select the formation based on your analysis of the factors of METT-T.

Ref: SH-4 (FM 7-8), page SH-4-2, para 2-7

QUESTION: What does the acronym METT-T stand for?

ANSWER: Mission, Enemy, Terrain and Weather, Troops and Time.

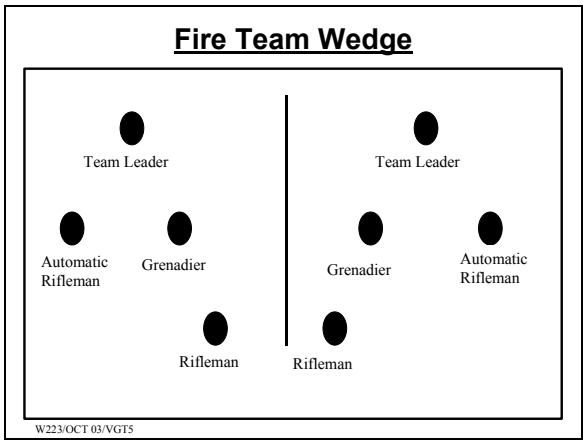
Ref: SH-2 (FM 3-25.26), page SH-2-3 thru SH-2-5

When you move a small group of soldiers in a combat environment, you must form them as a squad and move them as two fire teams. Keep METT-T in mind when selecting your movement techniques and formations.

Your soldiers must be able to see the fire team leader. The fire team leaders must be able to see the squad leader, and the squad leader must be able to see the team leaders. The distance between each person, and team, will also vary according to METT-T.

Fire Team Wedge and File Formations:

SHOW VGT-5, FIRE TEAM WEDGE



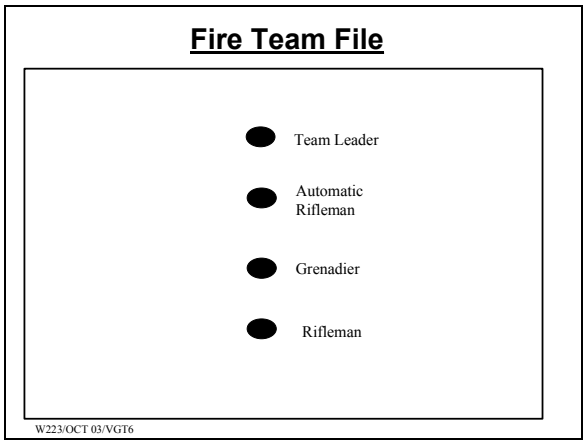
Ref: SH-4 (FM 7-8), pages SH-4-2 thru SH-4-5

Fire teams normally move in a wedge formation. When used, the wedge formation allows the fire team leader to lead by example. He controls the fire team by telling them to follow him and do as he does. When he moves to the left, his soldiers move to the left. When he gets down, they get down, and when he shoots, they shoot. If the fire team leader is going to lead by example, all his soldiers must be able to see him. Normally you want to keep a 10-meter interval between soldiers. There may be times when the wedge formation will change based on the terrain or some other factor. This should only be a temporary condition, and as soon as the condition changes, soldiers should spread back into the wedge without a command to do so.

When the terrain precludes use of the wedge formation, fire teams use the file formation.

REMOVE VGT-5

SHOW VGT-6, FIRE TEAM FILE



NOTE: Inform the students that there will be a PE/Demonstration following this portion of class so they will be able to see how the formations look and the distances between soldiers.

REMOVE VGT-6

Squad Formations:

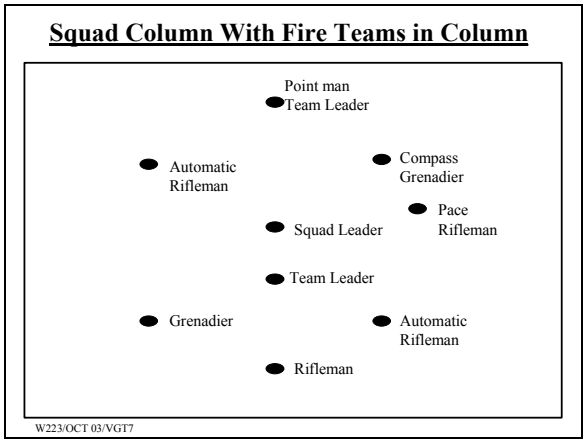
We will now discuss the squad formations. Squad formations describe the relationships between the fire teams.

QUESTION: What are the three squad formations?

ANSWER: 1. Squad Column.
2. Squad Line.
3. Squad File.

Ref: SH-4 (FM 7-8), page SH-4-3, Figures 2-7 thru 2-9

SHOW VGT-7, SQUAD COLUMN WITH FIRE TEAMS IN COLUMN



Ref: SH-4 (FM 7-8), page SH-4-4, Figure 2-7

The squad column is the squad's most common formation. It provides good dispersion laterally and in depth without sacrificing control and facilitates maneuver. The lead squad is the base fire team. When the squad moves independently or as the rear element of a squad, the rifleman in the trail fire team provides rear security.

QUESTION: What fire team formations are the fire teams in when the squad is in column formation?

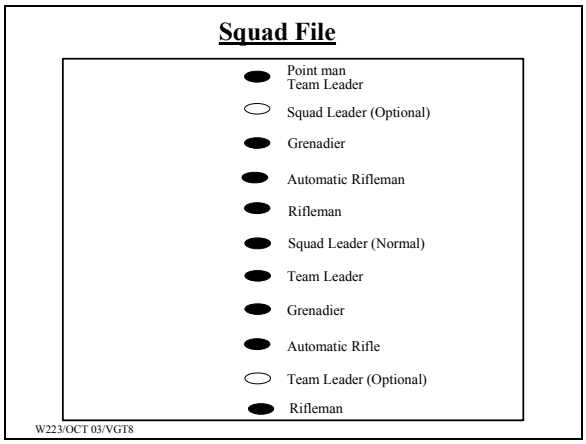
ANSWER: Wedge

Ref: SH-4 (FM 7-8), pages SH-4-2 and SH-4-4, Figures 2-4 and 2-7

REMOVE VGT-7

The squad can provide maximum firepower to the front when traveling in a squad line. When a squad is acting as the base squad, the fire team on the right is the base fire team.

SHOW VGT-8, SQUAD FILE



Ref: SH-4 (FM 7-8), page SH-4-4, para 2-9b and Figure 2-8

NOTE: Accomplish this during PE following ELO 3.

When not traveling in a column or line, the squad travels in a file. The squad file has the same characteristics as the fire team file. The squad leader should move to the second or first position if he desires to increase his control over the formation and to exert greater morale. Being at the front, he can make decisions immediately.

Ref: SH-4 (FM 7-8), page SH-4-5, para 2-8c

QUESTION: What can a squad leader do to add control at the rear of the formation?

ANSWER: Move a team leader to the rear of the formation, placing him next to last in the file, in front of the rear guard rifleman.

Ref: SH-4, FM 7-8, page SH-4-5, para 2-8c, and Figure 2-9

REMOVE VGT-8

2. Learning Step / Activity 2. Arm-and-Hand Signals

Method of Instruction: Demonstration
Technique of Delivery: Small Group Instruction (SGI)
Instructor to Student Ratio: 1:8
Time of Instruction: 20 mins
Media: None

Arm- and-Hand Signals

As a squad leader or fire team leader, you control and lead your soldiers. We already talked about being out front and leading by example. You lead by example and you control using voice commands, arm-and-hand signals, and other visual or sound signals, such as whistles.

We will concentrate on hand-and-arm signals. As a homework assignment, we tasked you to read arm-and-hand signals in SH-5-1, FM 21-60, para 2-4 and 2-5.

NOTE:

- Instruct students to reference their SH-5 (FM 21-60).
- Demonstrate the 35 hand signals and ensure students repeat the signals.
- Watch the students perform the signals and make corrections.
- Once finished demonstrating all the signals, test students by randomly asking them to perform certain arm-and-hand signals. Allow them to use their reference.

Ref: SH-5, FM 21-60, pages SH-5-2 thru SH-5-14

NOTE: The random checking of arm-and-hand signals during this learning step activity meets the requirements of conducting a check on learning.

3. Learning Step / Activity 3. Conduct Movement

Method of Instruction: PE
Technique of Delivery: Small Group Instruction (SGI)
Instructor to Student Ratio: 1:8
Time of Instruction: 1hr 30 mins
Media: PE-2

Conduct PE-2, See Appendix C.

NOTE: The demonstration during the learning step meets the requirement of conducting a check on learning.

D. ENABLING LEARNING OBJECTIVE

ACTION:	Perform actions at danger areas.
CONDITIONS:	In a classroom environment culminating in a situational training exercise and given a team/squad of soldiers.
STANDARDS:	Performed the actions necessary to cross a danger area IAW FM 7-8 (SH-6-1).

1. Learning Step / Activity 1. Perform Actions at a Danger Area (While Dismounted)

Method of Instruction: Conference / Discussion
Technique of Delivery: Small Group Instruction (SGI)
Instructor to Student Ratio: 1:8
Time of Instruction: 40 mins
Media: VGT-9 thru VGT-14

Perform Actions at a Danger Area (While Dismounted)

As a leader conducting tactical movement in an area of operation, you will encounter some type of danger area. This lesson will show you how to cross that danger area without sacrificing time, equipment, or personnel to accomplish your mission.

NOTE: FM 7-8 refers to procedures for crossing danger areas at the platoon level. The procedures described below are the same procedures a smaller unit uses to cross a danger area.

Ref: SH-6, FM 7-8, pages SH-6-2 thru SH-6-8

Question: How must a platoon cross a danger area?

Answer: With great caution and as quickly as possible.

Ref: SH-6, FM 7-8, page SH-6-2, para 2-11

A danger area is any place on a route where the leader determines his squad might be exposed to enemy observation, fire, or both. Squads try to avoid danger areas. If a squad must cross a danger area, it does so with great caution and as quickly as possible.

NOTE: Ask the students to explain some of the danger areas that they may encounter while conducting movements in a field situation.

There are several different types of danger areas that you as a leader will encounter while moving through your area of operations. Below are seven examples of some danger areas that you may encounter.

NOTE: Discuss the following examples of danger areas and crossing procedures.

- Open areas
- Roads and trails
- Villages
- Enemy positions
- Minefields
- Streams
- Wire obstacles

NOTE: If at all possible, you should bypass danger areas.

Ref: SH-6, FM 7-8, page SH-6-2, para 2-11a

QUESTION: Based on what does a leader decide how a squad will cross danger areas?

ANSWER: Based on time he has, the size of the unit, the size of the danger area, the fields of fire into the area, and the amount of security he can post.

Ref: SH-6-3, FM 7-8, para 2-11b (1)

As a squad--during movement--you may be moving as the lead squad/team of a larger unit when you encounter a danger area that your squad must cross.

QUESTION: What are the four steps necessary to cross danger areas?

ANSWER:
1. Designate near-and far-side security.
2. Secure the near side security (right, left, and rear flanks).
3. Reconnoiter and secure the far side.
4. Execute crossing the danger area.

Ref: SH-6, FM 7-8, page SH-6-3, para 2-11b

The squad leader decides how the squad will cross, based on the time he has, the size of the unit, the size of the danger area, the fields of fire into the area, and the amount of security he can post. A small unit may cross all at once, in buddy teams, or one soldier at a time. A large unit normally crosses its elements one at a time. As each element crosses, it moves to an overwatch position or to the far-side rally point until told to continue movement.

To maintain momentum, trailing squads normally cross the danger area without conducting their own reconnaissance or establishing far-side security. The lead squad conducts reconnaissance and maintains far-side security for the whole force.

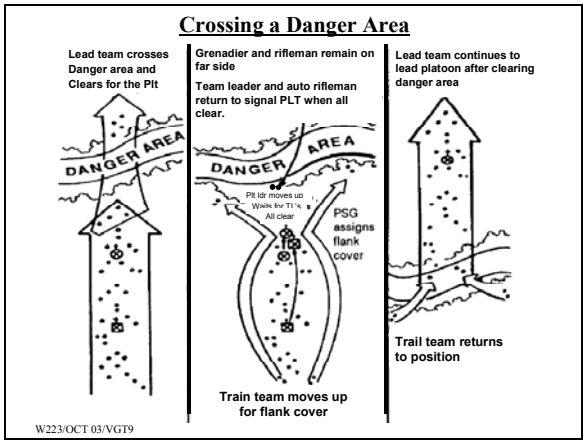
NOTE: The secured area must be large enough to allow the full deployment of the remainder of the unit.

QUESTION: When operating as an independent squad who decides where the squad will cross the linear danger area?

ANSWER: The squad leader reconnoiters the danger area and selects the crossing point that provides the best cover and concealment.

Ref: SH-6, FM 7-8, page SH-6-3, para 2-11c

SHOW VGT-9, CROSSING A DANGER AREA



Ref: SH-6 (FM 7-8), pages SH-6-3 and SH-6-4

As a squad leader of an independent squad or of the lead squad for a larger unit you come across a linear danger area. You must move your squad through the danger area or assume responsibilities of the base squad during the crossing.

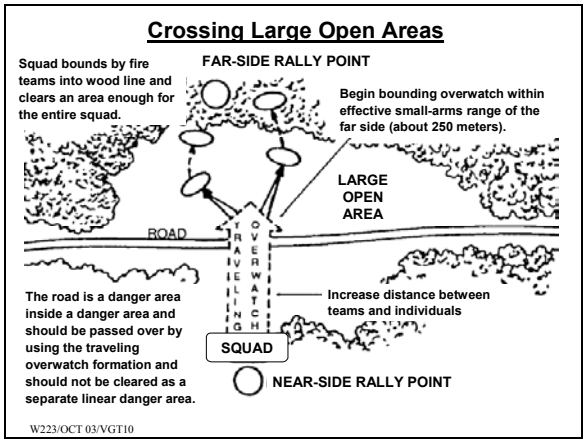
NOTE: Direct the students to turn to page SH-6-4 of SH 6 and discuss the squads action to cross a linear danger area. Call on students to read the 16 actions.

REMOVE VGT-9

The two most common danger areas are the large and small open areas. They each require different methods that you must know in order to successfully cross them.

Break: Time: 06: 50 to 07: 00
Time: 07: 00 to 07: 30

SHOW VGT-10, CROSSING LARGE OPEN AREAS



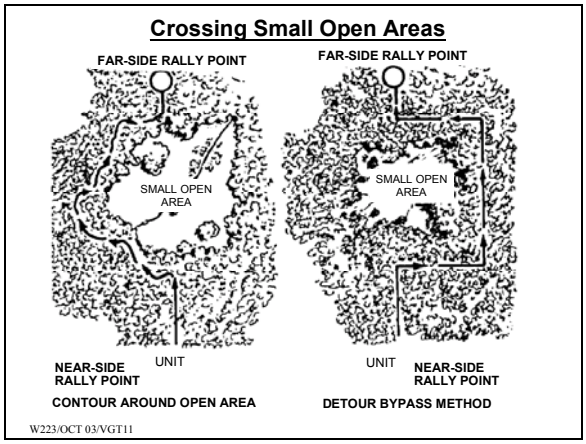
Ref: SH-6 (FM 7-8), pages SH-6-4 and SH-6-5, para 2-11d

You must use a combination of traveling overwatch and bounding overwatch techniques to cross a large danger area that the squad cannot bypass due to time. Units use the traveling overwatch technique to save time. At any point in the open area where the squad leader expects enemy contact or where the squad comes within range of small arms fire of the far side (about 250 meters), the squad moves using the bounding overwatch technique. Once beyond the open area the squad reforms and continues the mission.

REMOVE VGT-10

There are two techniques leaders may use to cross small danger areas in the time allowed for the mission: Detour bypass and contouring around the open area.

SHOW VGT-11, CROSSING SMALL OPEN AREAS



Ref: SH-6 (FM 7-8), page SH-6-5, para 2-11e

Detour bypass method: By the use of 90 degree turns to the right or left, the squad moves around the open area until reaching the far side where it then continues its mission. Do not add to the distance of the planned route the pace count of the offset and return legs.

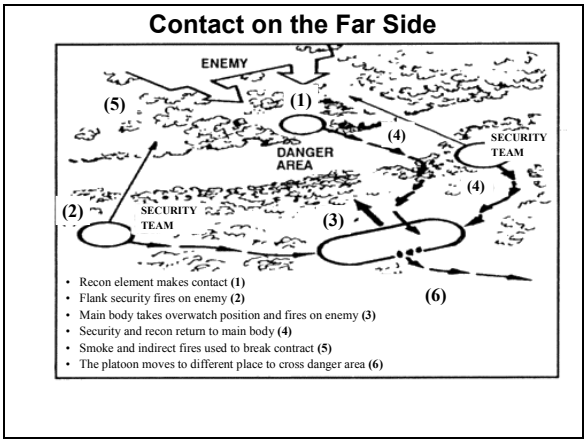
Contouring around the open area: The leader designates a rally point on the far side with the movement azimuth, decides which side of the open area to contour around (after considering the distance, terrain, cover and concealment) and moves around the open area. He uses the wood line and vegetation for cover and concealment. When the squad arrives at the rally point on the far side, the leader reassumes the azimuth to the objective area and continues the mission.

REMOVE VGT-11

NOTE: Visual aids VGT-12 through VGT-14 provide the procedures and responsibilities of the elements when enemy contacts occur in and around the danger area: VGT-12, Contact on the far side, VGT-13, Contact on a road or trail, and VGT-14, Contact on the near side.

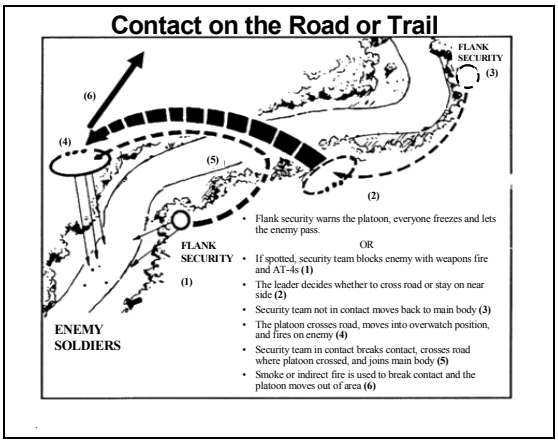
NOTE: Discuss the actions teams take using the visual aids. This information will also be covered in later lessons.

SHOW VGT-12, CONTACT ON THE FAR SIDE



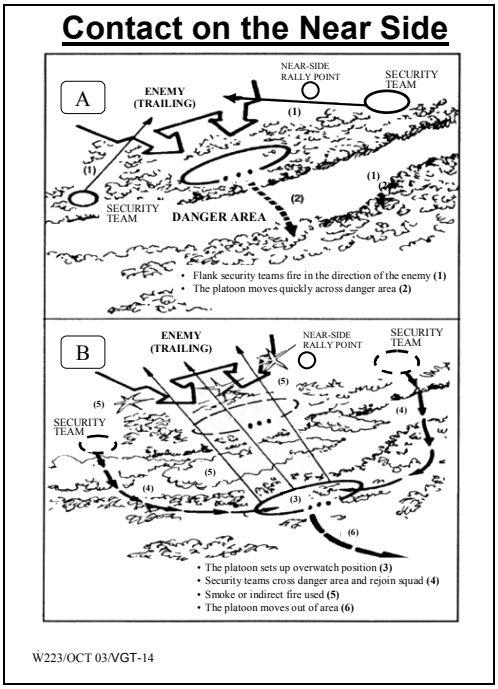
REMOVE VGT-12

SHOW VGT-13, CONTACT ON THE ROAD OR TRAIL



REMOVE VGT-13

SHOW VGT-14, CONTACT ON THE NEAR SIDE



REMOVE VGT-14

Ref: SH-6 (FM 7-8), page SH-6-6 thru SH-6-8

CHECK ON LEARNING: Conduct a check on learning and summarize the ELO.

QUESTION: What is a danger area?

ANSWER: Any place on a route where the leader's estimate process tells him that his squad might be exposed to enemy observation, fire, or both.

Ref: SH-6, FM 7-8, page SH-6-2, para 2-11

QUESTION: What is the first step for a squad when it crosses a danger area independently or as the lead element of a larger force?

ANSWER: Designate near- and far-side rally points.

Ref: SH-6, FM 7-8, page SH-6-3, para 2-11b

QUESTION: Who is responsible for clearing the far side of a danger area when crossing a linear danger area?

ANSWER: The far- side security will clear the far side of the danger area.

Ref: SH-6, FM 7-8, page SH-6-4, para 2-11c(8)

QUESTION: What are the two techniques used when crossing a small open area?

ANSWER: Detour bypass method and Contouring around the open area.

Ref: SH-6, FM 7-8, page SH-6-5, para 2-11e

2. Learning Step / Activity 2. Crossing Danger Areas

Method of Instruction: PE
Technique of Delivery: Small Group Instruction (SGI)
Instructor to Student Ratio: 1:8
Time of Instruction: 1 hr
Media: PE-3

NOTE: SGLs will allow students a ten minute break as the situation presents itself, approximately every 50 minutes.

Conduct PE-3, see Appendix C

Break Time: 08: 50 to 0: 9 00

E. ENABLING LEARNING OBJECTIVE

ACTION:	Enforce Detection Prevention Measures.
CONDITIONS:	In a classroom environment culminating in a situational training exercise and given a team/squad of soldiers.
STANDARDS:	Enforced detection prevention measures by maintaining noise, light, and litter discipline denying detection IAW STP 21-24-SMCT (SH-8) and FM 21-75 (SH-3).

1. Learning Step / Activity 1. Enforce Detection Prevention Measures

Method of Instruction: Conference / Discussion
Technique of Delivery: Small Group Instruction (SGI)
Instructor to Student Ratio: 1:8
Time of Instruction: 20 mins
Media: None

Noise discipline. Whether in a fixed position or moving as part of a squad, keep all noise to an absolute minimum. Any noise out of the ordinary, especially noises that can come about only from a human, can betray the location of the unit to the enemy. Such noises include, among other things, speech or any metal contact.

You can take various steps to reduce the chances of betraying the squad by sound. Tape or pad metal clips or other attachments to prevent their striking other objects. Ensure soldiers tighten their weapon slings or wrap them around the weapon and tuck in loose ends. Make sure however, not to restrict the moving parts of the weapon, it could prevent its operation.

Prior to departing on any kind of movement--where contact with the enemy is possible--make sure you "noise check" your soldiers. Have them jump up and down in place and adjust or pad their equipment as needed. Use radios and field phones only when necessary, keeping the volume at a level that only the radio operator can hear.

During movement, control the squad through arm-and-hand signals rather than voice. Therefore, everyone one should be able to see the leader. Also, squad members should repeat any arm-and-hand signals given to ensure that all members of the squad received the signal.

During the hours of darkness, sound travels farther. This means that you take greater care to reduce all talking and other sounds. Sounds can also mask other sounds. For example, wind or rain tends to mask movement through underbrush. You may consider timing your movement to coincide with the movement of vegetation caused by the wind.

Light discipline. Light sources attract the human eye, especially in periods of limited visibility. The longer the exposure to darkness, the greater the eye's sensitivity to light becomes. It is possible for the enemy to detect your position by the light from a single cigarette, flare of a match or lighter, enough so that they can pinpoint your position.

You must consider and mask all possible sources of illumination, whether generated or reflected. Of all lights, white light is the easiest to detect over distance as it incorporates all colors of light in the spectrum visible to the human eye.

The use of filters or colored light bulbs will reduce the risk of detection, but the best method is to avoid the use of any light at all.

If for any reason you need light, you must ensure you shield the light from view from any direction. Masking may be little more than throwing a poncho over the individuals using the light (such as doing a map check during movement), to employing blankets or other material to block windows in a building.

When considering masking lights, no light is too small. Soldiers sometimes unintentionally give away their positions by checking their watches for time.

You must pay attention in dealing with nominally dull surfaces, such as the metal parts of weapons or the metal clips on load carrying equipment (LCE). Over a period of time and repeated use, these surfaces can become polished and reflect light that can expose your position. Frequently inspect all such surfaces, and as necessary darken them with a substance that does not reflect light.

An additional consideration in dealing with light in periods of limited visibility is the soldier's own night vision. Whenever a soldier is about to become exposed to a light source, he should cover one eye in order to retain the night vision in that eye.

Litter discipline. Litter discipline can be critical to operations. Many Americans are unaware that the battle of Antietam in the Civil War was fought as a result of a Union soldier finding the Army of Northern Virginia's operational orders wrapped around three cigars in an abandoned Confederate encampment. Historians can only wonder what would have been the consequences of General Lee's operations that summer if the Northern forces had not found his plans as litter on the battlefield.

When a unit stops to consume a meal, leaders must ensure that soldiers police up all refuse. The location and number of open packets will tell the enemy the

number of personnel in the unit. After every stop, soldiers must ensure that nothing is left to give the enemy any clue that they were in the area. The policing of litter is not solely for the places where your unit stops but also when on the move. Trail soldiers should check the trail for items lost or dropped by those ahead of them.

Assigning soldiers to collect the squad's trash and carry it until they can properly dispose of the trash is one possible solution. They may bury it on site if the time and situation allow. However, if you decide to bury it on site, you must ensure that you camouflage the site to prevent its detection.

An important aspect in dealing with all litter is a careful examination of what it contains. It is important that you do not discard any document that may provide the enemy with any type of intelligence about your unit.

CHECK ON LEARNING: Conduct a check on learning and summarize the ELO.

QUESTION: When complying with noise discipline what should you <u>not</u> do to your weapon?

ANSWER: Be careful not to restrict the moving parts of the weapon which could prevent its operation.

Ref: SH-8, STP 21-1 SMCT, Task: 071-331-0815

SECTION IV. SUMMARY

Method of Instruction: Conference / Discussion
Technique of Delivery: Small Group Instruction (SGI)
Instructor to Student Ratio is: 1:8
Time of Instruction: 15 mins
Media: None

Check on Learning

QUESTION: What are the four steps to land navigation?

ANSWER: Know where you are, plan the route, stay on the route, and recognize the objective.

Ref: SH-2, FM 3-25.26, pages SH-2-5 and SH-2-6, para 11-5a thru d

QUESTION: What are decision points?

ANSWER: Checkpoints located at places where changes in direction are necessary.

Ref: SH-2, FM 3-25.26, page SH-2-6, para 11-5b(3)

QUESTION: What does OCOKA stand for?

ANSWER: Observations and Fields of Fire, Cover and Concealment, Obstacles, Key Terrain, Avenues of Approach.

Ref: SH-2, FM 3-25.26, page SH-2-2, para 11-4a

QUESTION: Your unit's ability to move depends on?

ANSWER: Your movement skills and those of your soldiers.

Ref: SH-3, FM 21-75, page SH-3-2, para Movement Techniques

QUESTION: Which method of movement is the fastest way to move from one position to another?

ANSWER: The rush movement.

Ref: SH-3, FM 21-75, page SH-3-3, para Methods of Movement (Rush)

QUESTION: On what does the leader base the selection of a movement technique?

ANSWER: The likelihood of enemy contact and the need for speed.

Ref: SH-4, FM 7-8, page SH-4-5, para 2-10

QUESTION: If enemy contact is not likely and speed is necessary, what movement technique would you use?

ANSWER: Traveling.

Ref: SH-4, FM 7-8, page SH-4-6, para 2-10a(1)

QUESTION: Why do squads use formations?

ANSWER: For control, flexibility, and security.

Ref: SH-4, FM 7-8, page SH-4-2, para 2-7

QUESTION: Name the fire team formations.

ANSWER: Wedge and File

Ref: SH-4, FM 7-8, pages SH-4-2 and SH-4-3, para 2-7a and b

QUESTION: The normal interval in a fire team wedge formation is what?

ANSWER: 10 meters

Ref: SH-4, FM 7-8, page SH-4-2, para 2-7a

QUESTION: What is the squad's most common squad formation?

ANSWER: Squad column.

Ref: SH-4, FM 7-8, page SH-4-4, para 2-8a

QUESTION: When crossing a large danger area what types of movement techniques would you use?

ANSWER: Combination of traveling overwatch and bounding overwatch.

Ref: SH-6, FM 7-8, page SH-6-4, para 2-11d

QUESTION: What are the two methods used when crossing a small danger area?

ANSWER: Detour bypass method and contouring around the open area.

Ref: SH-6, FM 7-8, page SH-6-5, para 2-11e

QUESTION: Once in range of enemy small arms fire, what movement technique should you use?

ANSWER: Bounding Overwatch technique.

Ref: SH-6, FM 7-8, page SH-6-4, para 2-11d

QUESTION: What degree of turns do you use when applying the detour bypass method of crossing a small open area?

ANSWER: 90 degree turns.

Ref: SH-6, FM 7-8, page SH-6-5, para 2-11e(1)

QUESTION: What discipline are you practicing if you avoid all unnecessary vehicular and foot movement?

ANSWER: Noise Discipline.

Ref: SH-8, STP 21-1-SMCT, page SH-8-2, Performance Step 1.a

Review / Summarize Lesson

During this class you learned how to plan and conduct movements individually and collectively as a unit. You now have the basic knowledge and ability to select the best possible route that you and your squad will need to navigate in order to successfully complete your mission. We Have used time proven techniques to teach you how to use the right formation with the right terrain and enemy situation. We have also taught you how to cross any danger area that you may encounter.

SECTION V. STUDENT EVALUATION

Testing Requirements

NOTE: Describe how the student must demonstrate accomplishment of the TLO. Refer student to the Student Evaluation Plan.

You will take a written examination. The examination will contain questions from this lesson. You must correctly answer 70 percent or more of the questions on the examination to receive a GO. Failure to achieve a GO on the examination will result in a retest. Failure of the retest could result in your dismissal from the course.

Feedback Requirements

NOTE: Feedback is essential to effective learning. Schedule and provide feedback on the evaluation and any information to help answer students' questions about the test. Provide remedial training as needed.

Inform the students where and when their examination will take place, as posted on the training schedule, and when they will receive feedback on the test. Include any retest information.

Enabling Learning Objective A

Learning Step 1

VGT-1, Step 1, Know Where You Are

Step 1, Know Where You Are

- Your directional orientation.
- The direction and distances to your objective.
- Other landmarks and features.
- Any impassable terrain, the enemy, and danger areas.
- Both advantages and disadvantages presented by the terrain between you and your objective.

W223/OCT 03/VGT 1

STEP 2, Plan the Route

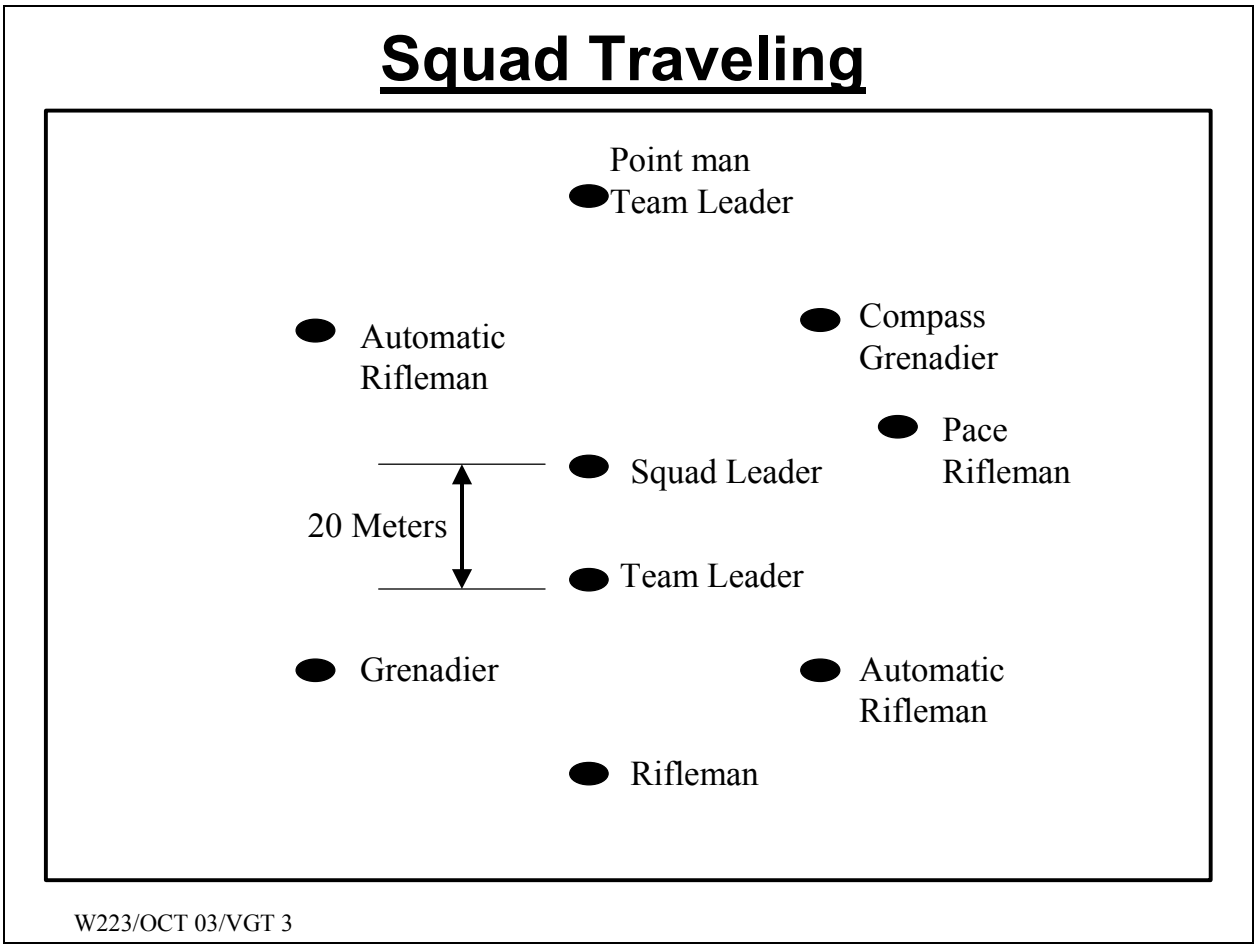
- Travel time.
- Travel distance.
- Maneuver room needed.
- Trafficability.
- Load-bearing capacities of the soil.
- Energy expenditure of soldiers.
- Factors of METT-T.
- Tactical aspect of terrain (OCOKA).
- Ease of logistical support.
- Potential for surprising the enemy.
- Availability of control and coordination features.
- Availability of good checkpoints and steering marks.

W223/OCT 03/VGT 2

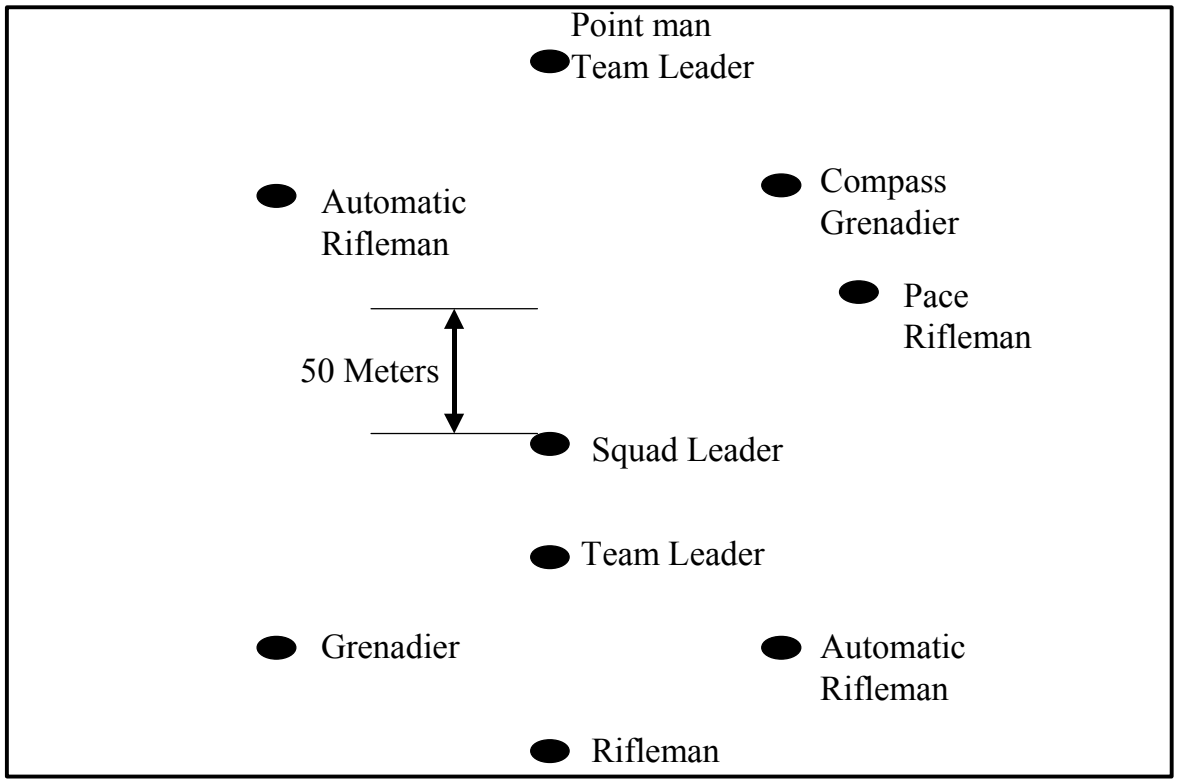
Enabling Learning Objective B

Learning Step 1

VGT-3, Squad Traveling



Squad Traveling Overwatch

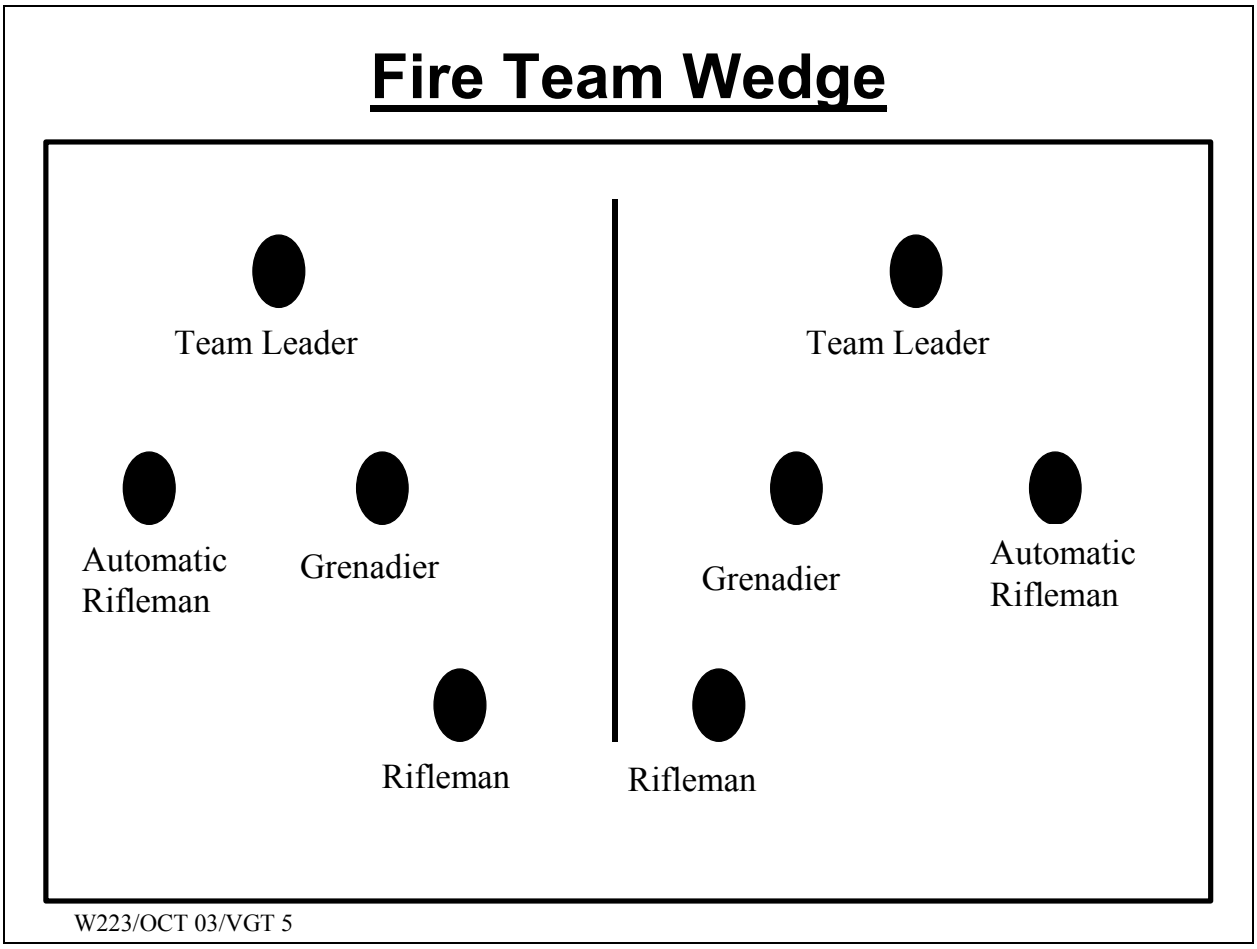


W223/OCT 03/VGT 4

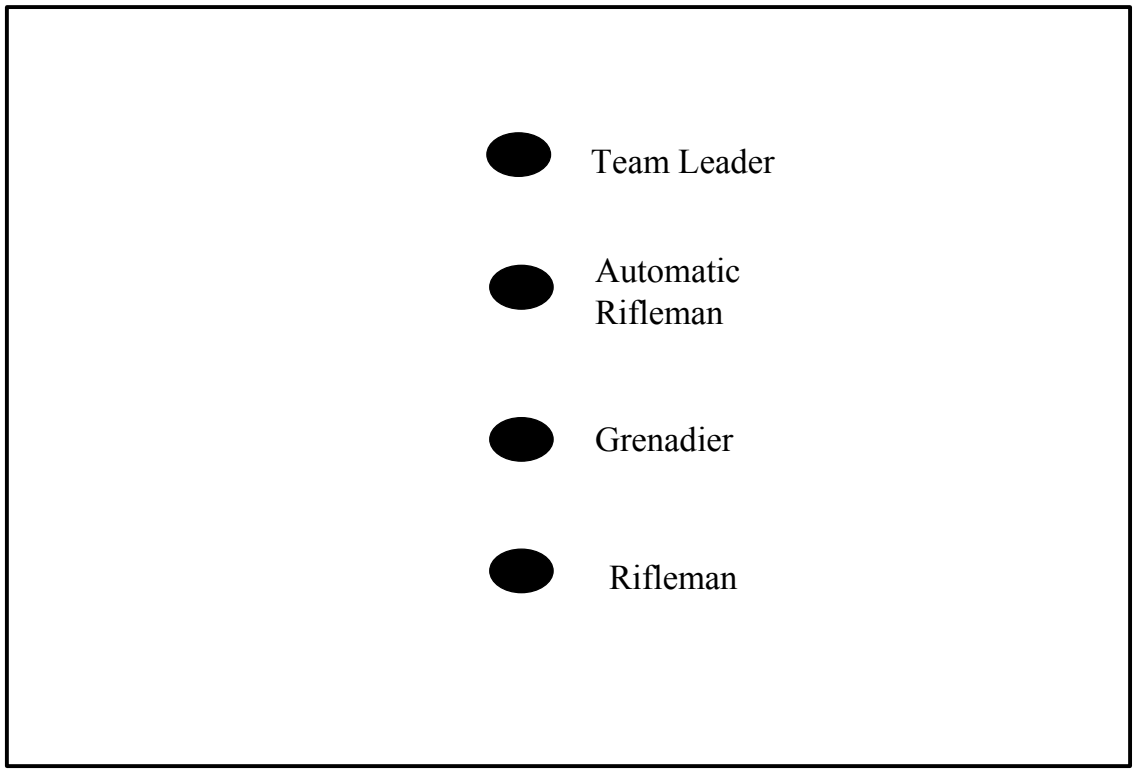
Enabling Learning Objective C

Learning Step 1

VGT-5, Fire Team Wedge

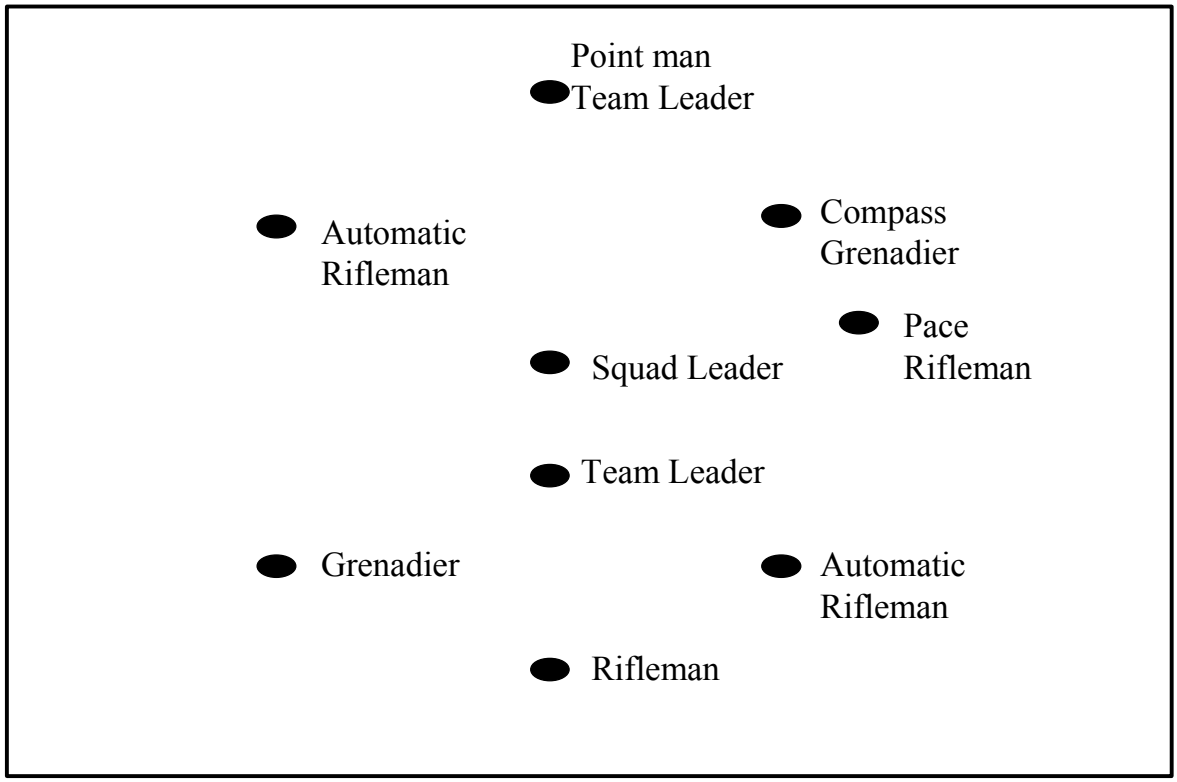


Fire Team File



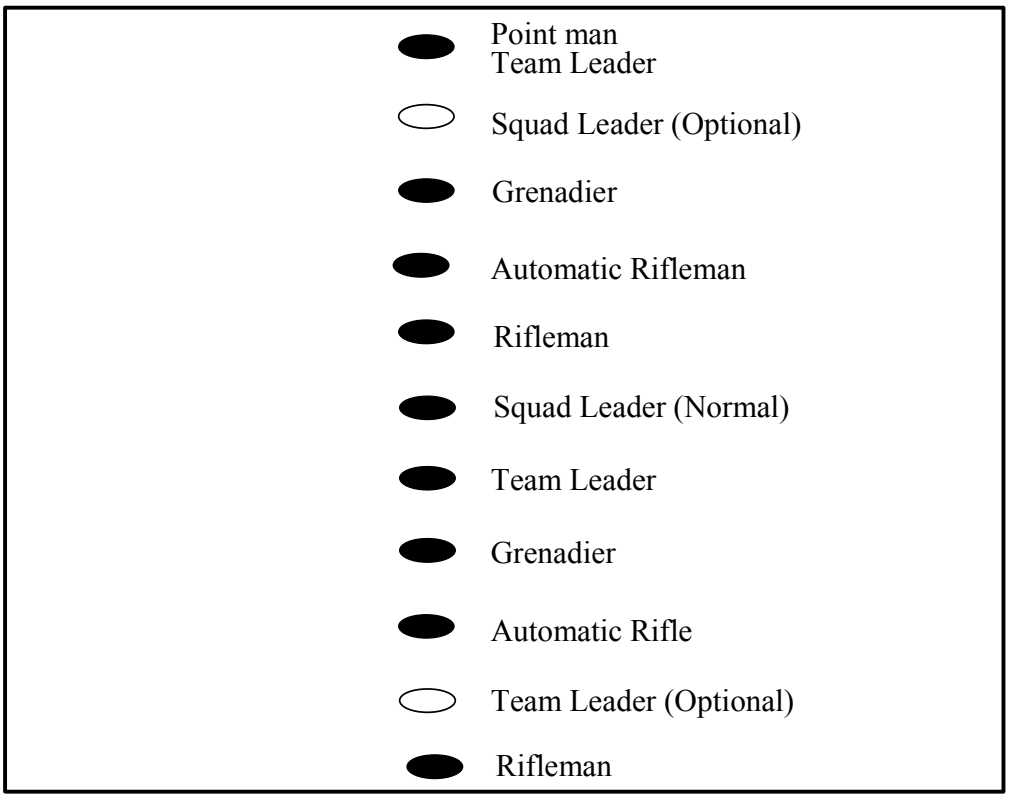
W223/OCT 03/VGT 6

Squad Column With Fire Teams in Column



W223/OCT 03/VGT 7

Squad File

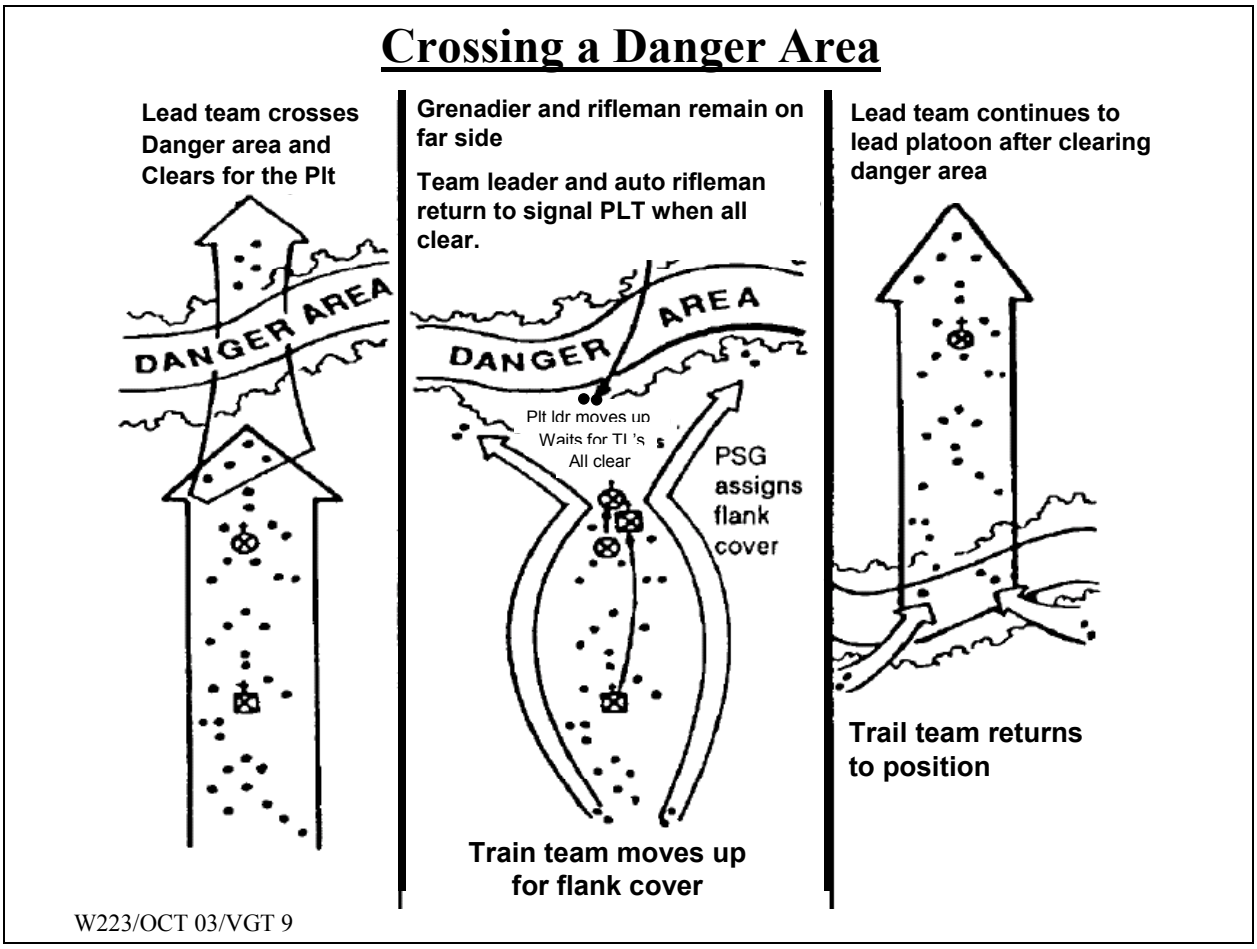


W223/OCT 03/VGT 8

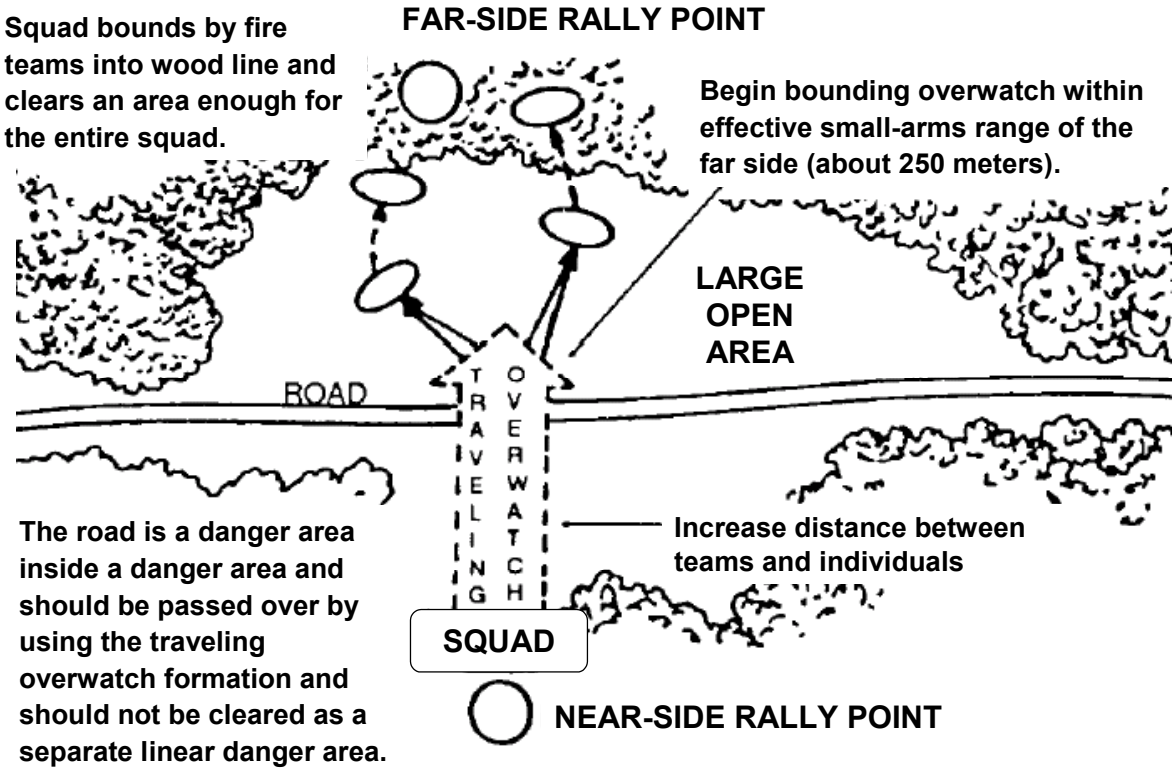
Enabling Learning Objective D

Learning Step 1

VGT-9, Crossing a Danger Area



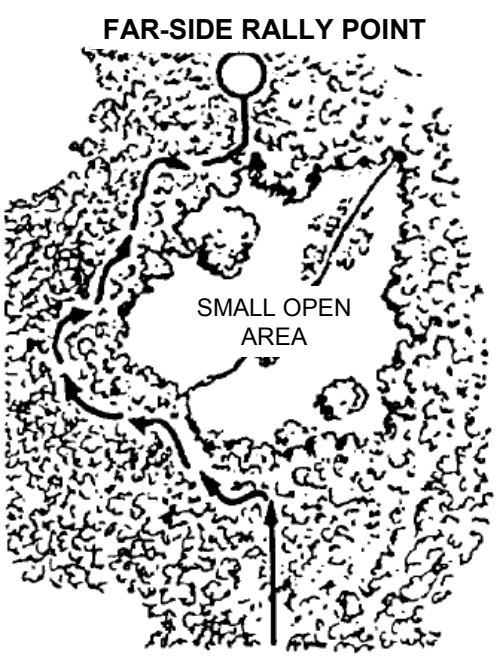
Crossing Large Open Areas



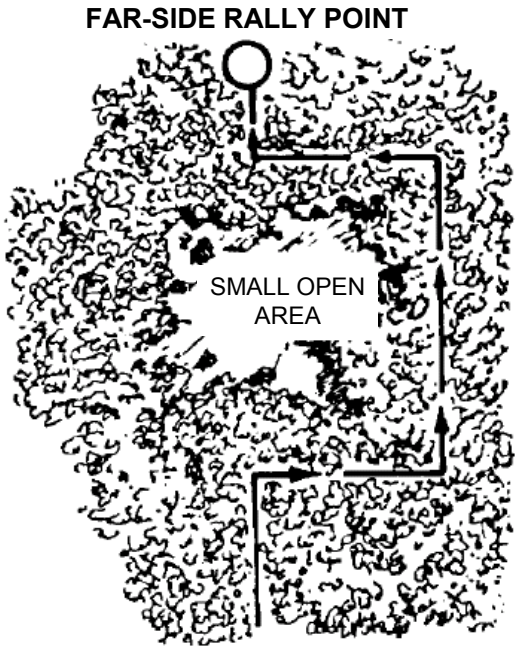
The road is a danger area inside a danger area and should be passed over by using the traveling overwatch formation and should not be cleared as a separate linear danger area.

W223/OCT 03/VGT 10

Crossing Small Open Areas



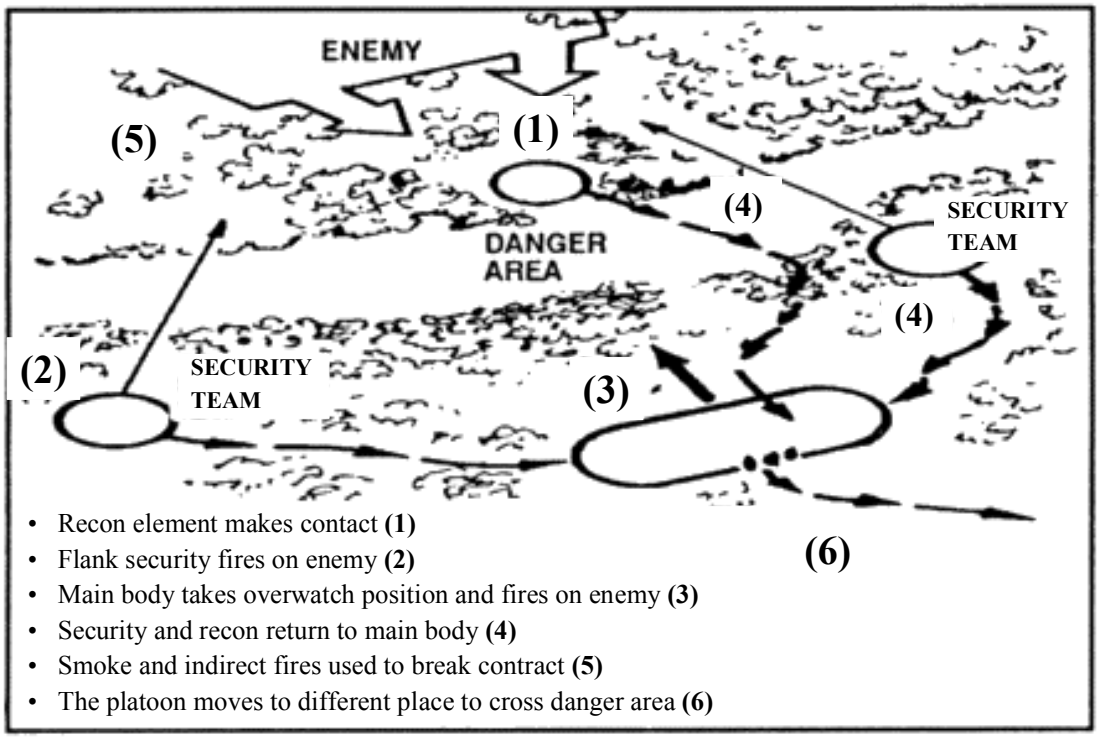
CONTOUR AROUND OPEN AREA



DETOUR BYPASS METHOD

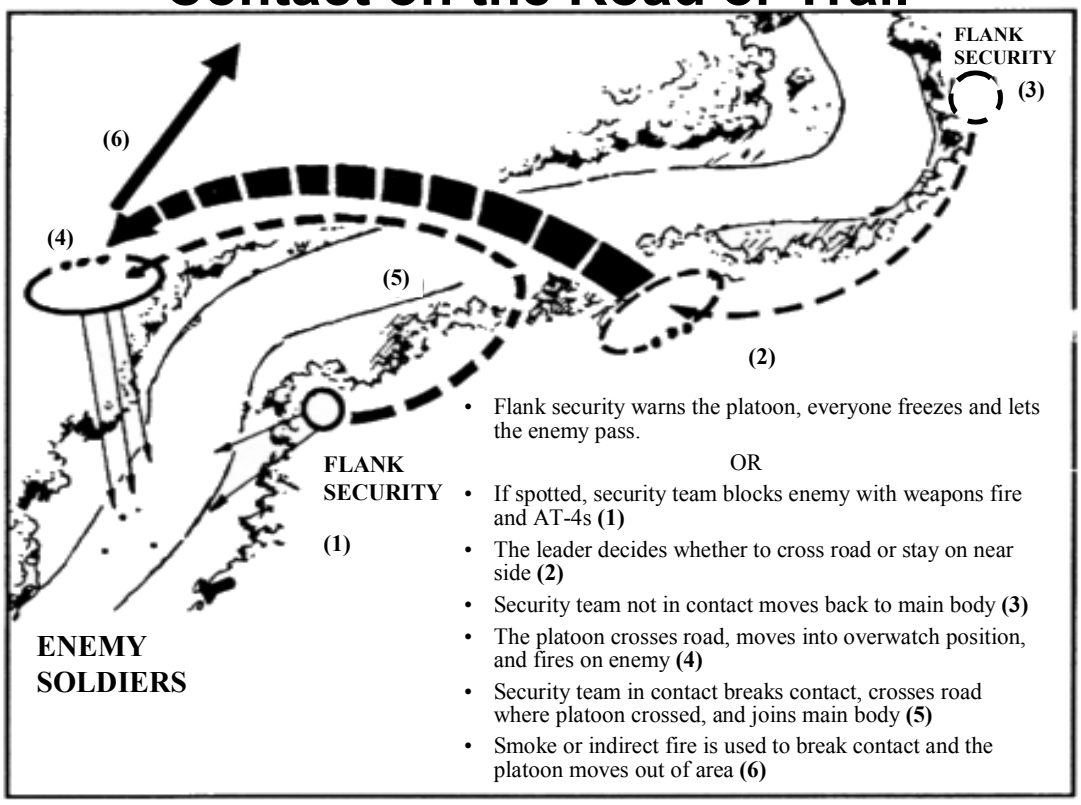
W223/OCT 03/VGT 11

Contact on the Far Side



- Recon element makes contact **(1)**
- Flank security fires on enemy **(2)**
- Main body takes overwatch position and fires on enemy **(3)**
- Security and recon return to main body **(4)**
- Smoke and indirect fires used to break contract **(5)**
- The platoon moves to different place to cross danger area **(6)**

Contact on the Road or Trail



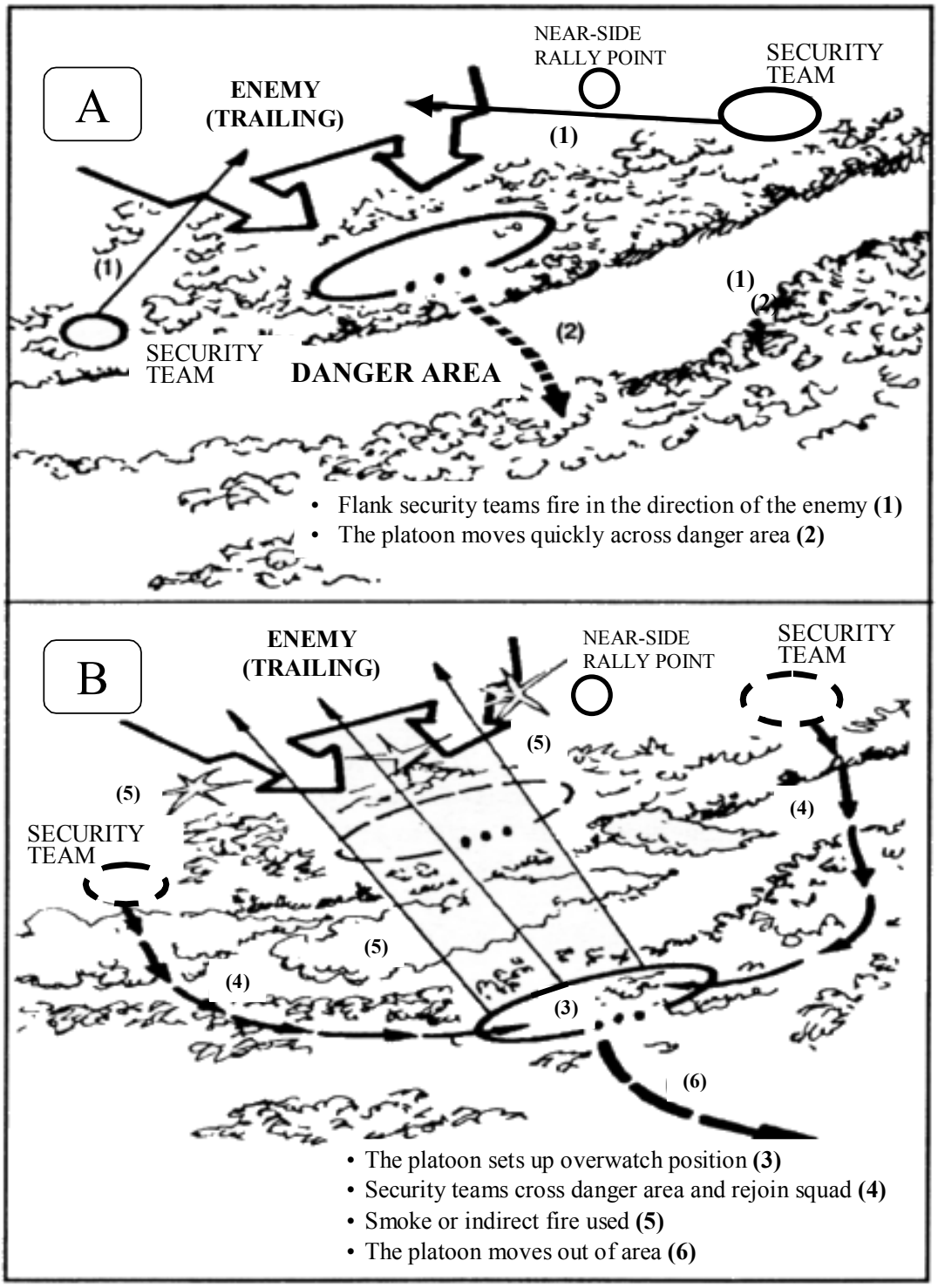
- Flank security warns the platoon, everyone freezes and lets the enemy pass.

OR

- If spotted, security team blocks enemy with weapons fire and AT-4s **(1)**
- The leader decides whether to cross road or stay on near side **(2)**
- Security team not in contact moves back to main body **(3)**
- The platoon crosses road, moves into overwatch position, and fires on enemy **(4)**
- Security team in contact breaks contact, crosses road where platoon crossed, and joins main body **(5)**
- Smoke or indirect fire is used to break contact and the platoon moves out of area **(6)**

VGT-14, Contact on the Near Side

Contact on the Near Side



W223/OCT 03/VGT-14

Appendix B Test(s) and Test Solution(s) (N/A)

PRACTICAL EXERCISE SHEET PE-1

Title	Select a Movement Route Using a Map.
Lesson Number/Title	W223 version 1 / Conduct Movement
Introduction	One key to success in tactical missions is the ability to move from one point to another undetected by the enemy. Your objective is to find a route that will allow for movement using terrain that provides cover and concealment for your section/squad. You will use the four steps during this exercise to select a route to a destination to accomplish a mission provided to you on an operations order (OPORD) or fragmentary order (FRAGO).
Motivator	This practical exercise is going to give you experience in selecting a route from one point to another using a map based on the information provided to you in a FRAGO or OPORD.
Learning Step/Activity	**NOTE:** The instructor should inform the students of the following Learning Step/Activity requirements. (ELO A.2) At the completion of this lesson, you [the student] will: **Action:** Select a Movement Route Using a Map.
Safety Requirements	None
Risk Assessment Level	Low
Environmental Considerations	None
Evaluation	This is not a graded exercise.
Instructional Lead-In	You will take the information presented in this lesson plan and prepare a movement route from one point on the map to another. You will take into consideration the situation based on a FRAGO or OPORD your SGL issues to you.
Resource Requirements	**Instructor Materials:** SGL Materials--TSP **Student Materials:** Students must have-- • Pencil. • Paper. • Map of the local STX training area. • GTA 5-2-12 Coordinate Scale and Protractor. • Copy of a FRAGO or OPORD.

Special Instructions

NCOA--

- Maps used will be of the local STX training area. This will allow the students to become familiar with the STX training area prior to the STX.
- Develop a FRAGO or OPORD for the students to use in their planning of the movement route.
- Provide the students with a start point and an ending point on the map and instruct them to formulate the best route based on the terrain and the information on the FRAGO or OPORD.
- Develop an instruction sheet on how to conduct the PE.
- Develop a solution sheet, slide, or other means to provide the solution to the students upon completion of the exercise.

Procedures

NCOAs may develop their own procedures to conduct this PE; however, the students must meet the following standards when they select a route on their map: Their routes must offer--

- Maximum cover.
- Maximum concealment.
- Good observation to fire at known or suspected enemy positions along movement route.
- Best fields of fire.
- The most favorable tactical advantage.
- Positive control of all elements.

NCOAs may develop their own procedures to conduct this PE; however, the students must meet the following standards when they select a route on their map: Their routes must offer--

- Maximum cover.
- Maximum concealment.
- Good observation to fire at known or suspected enemy positions along movement route.
- Best fields of fire.
- The most favorable tactical advantage.
- Positive control of all elements.

Feedback Requirements

This is a not a graded PE. However, students will perform this same task during the STX when they serve in their leadership role. This task will be part of the students graded performance in the field while serving in a leadership position.

SOLUTION FOR
PRACTICAL EXERCISE PE-1

NCOA developed.

Select a Movement Route Using a Map.

This is not a graded exercise.

PRACTICAL EXERCISE SHEET PE-2

Title

Conduct Movement

Lesson Number/Title

W223 version 1 / Conduct Movement

Introduction

For the next hour and a half you will be walking through the three movement techniques using movement formations based on METT-T and using arm-and-hand signals.

Motivator

You learned and practiced earlier how to select a movement route using a map. Now the next thing you must accomplish is to move on that route using the proper movement techniques in a movement formation using hand and arm signals.

Your SGL will line you up in formations where you can observe the formations and distances and walk through the three movement techniques. You will move across an area using the movement techniques and formations you talked about during class.

Learning Step/Activity

NOTE: The instructor should inform the students of the following Learning Step/Activity requirements. (ELO C.3)

At the completion of this lesson, you [the student] will:

Action:	Conduct Movement

Safety Requirements

Prior to the start of any exercise, students must receive thorough briefings on safety, medical, and environmental hazards.

- The Chief Instructor (CI) of PLDC at each NCOA will conduct a safety risk assessment and a safety briefing as appropriate.
- Fluid replacement policy for warm weather training (Average acclimated soldier wearing BDU, Hot Weather).

The Army reviewed its policy for warm weather training as the result of a soldier's death and other instances of soldier hospitalization during 1997. The determination was that these soldiers suffered from over-hydration. The revised fluid replacement chart (below) describes the revised amounts of fluid replacement and work/rest cycles for acclimatized soldiers undergoing training. Of particular note is the fact that the revised maximum **hourly** fluid intake should **NOT** exceed 1.25 quarts, and the revised maximum daily fluid intake should **NOT** exceed 12 Liters.

Heat Category	WBGT Index, °F	Easy Work		Moderate Work		Hard Work	
		Work /Rest	Water Intake, Qt/hr	Work /Rest	Water Intake, Qt/hr	Work /Rest	Water Intake Qt/hr
1	78-81.9	NL	1/2	NL	3/4	40/20 min	3/4
2 Green	82-84.9	NL	1/2	50/10 min	3/4	30/30 min	1
3 Yellow	85-87.9	NL	3/4	40/20 min	3/4	30/30 min	1
4 Red	88-89.9	NL	3/4	30/30 min	3/4	20/40 min	1
5 Black	>90	50/10 min	1	20/40 min	1	10/50 min	1

- The work/rest times and fluid replacement volumes will sustain performance and hydration for at least 4 hrs of work in the specified heat category. Individual water needs will vary + or – 1/4 qt/hr.
- NL = no limit to work time per hour. Rest means minimal physical activity (sitting or standing) and should be accomplished in shade if possible.
- **CAUTION: Hourly fluid intake should not exceed 1 1/4 quarts.**
- **Daily fluid intake should not exceed 12 Liters.**
- **NOTE:** MOPP gear adds 10^{O} F to WBGT Index.
- **NOTE:** Wearing Body Armor adds 5^{O} F to WBGT Index

Easy Work	Moderate Work	Hard Work
• Weapon maintenance. • Walking hard surface at 2.5 mph, ≤ 30 lb. load • Guard Duty. • Marksmanship Training. • Drill and Ceremony.	• Walking loose sand at 2.5 mph, no load. • Walking hard surface at 3.5 mph, < 40 lb. load. • Calisthenics. • Patrolling. • Individual movement techniques. e.g. low crawl, high crawl. • Defensive position construction.	• Walking loose sand at 2.5 mph with load. • Walking hard surface at 3.5 mph, ≥ 40 lb. load. • Field assaults.

Risk Assessment Level

Low

Environmental Considerations

Check with local environmental office for local requirements.

Evaluation

- AAR
- This PE is not a graded exercise.
- Some skills you learn during this PE, you will apply during the tactical leadership evaluations conducted during the STX.

Instructional Lead-In

This PE is a culmination of all that you have learned to this point of this lesson plan "conduct movement." You will lead and participate in a walk through--using hand and arm signals--of the three movement techniques in squad/team movement formations.

I will form you up into two fire teams to demonstrate and walk you through:

- Wedge formation
- Traveling
- Traveling overwatch
- Bounding overwatch
- Fire and Maneuver

Pay attention to my demonstrations. You will have to lead a team using these techniques during the STX. Ask questions as I guide you through this exercise.

Resource Requirements

Instructor Materials:

- SGL Materials--TSP

Student Materials:
NOTE: Issued to students during inprocessing.

- Advance sheet in Appendix D, pen or pencil and writing paper and any materials required by the NCOA's SOP.

Special Instructions

- The PE is not to train students to be infantrymen or to place unrealistic emphasis on tactics.
- Design the PE so that the crux of the exercise is to see how well students use the skills and knowledge they learned during the class.
- Conduct this exercise as a walk through.
- Upon completion of walk all throughs, provide some of the students with an oral OPORD/FRAGO for the squad to move. Based on the OPORD/FRAGO the SGL gives, the assigned squad leader must determine the movement technique and formation of the squad/team.
- The intent of this PE is not to have the squad reach task proficiency but rather that the students participate in collective training event
- **NOTE:** The SGL must continuously evaluate and critique the students as they progress through the walk throughs.
- While mission accomplishment is important, the SGLs must place their emphasis on the students' ability to lead soldiers, think, reason, organize, and communicate, not mission accomplishment. Soldiers are to learn the basic execution of the task performed.
- Uniform/Equipment:
  - BDUs with field cap
  - LCE with two canteens of water.
  - 4 M16s or Rubber M16s per group of 8.
  - Other uniform/equipment requirements IAW NCOA SOP.
- Student led AARs must occur whenever possible, followed by a cadre AAR to reinforce the learning process. Students and cadre may conduct these AARs at the conclusion of an event, when student leaders change, or at the end of the PE. SGLs should place their students in a relaxed posture for the AARs. This will aid in the learning process. An example of a relaxed posture is the students grounding their equipment. This of course depends on time available or the situation and is solely the SGL's call.

- Recommended sequence of events:

  - Students move outside.
  - One group walks through the PE while other groups observe.
  - Conduct an AAR.
  - Second group walks through the PE while other groups observe.
  - Conduct an ARR.
  - Repeat until all groups have run through the exercise.
  - Select some students to lead a squad. Provide them with an oral OPORD/FRAGO.
  - Tell the student to select the proper movement technique and formation, and to move the squad out based on the orders.
  - Conduct an AAR.

Procedures	None.
Feedback Requirements	SGLs will conduct AARs frequently throughout the exercise.

PRACTICAL EXERCISE SHEET PE-3

Title

Crossing Danger Areas

Lesson Number/Title

W223 version 1 / Conduct Movement

Introduction

For the next hour you will be walking through the procedures in crossing a danger area using movement techniques and movement formations based on METT-T and using arm-and-hand signals.

Motivator

You learned and practiced earlier how to select a movement route using a map and proper movement techniques in a movement formation using arm-and- hand signals. Now we will add these newly learned skills and use them to cross danger areas.

Your SGL will line you up in formations where you will walk through the procedures to cross a danger area.

Learning Step/Activity

NOTE: The instructor should inform the students of the following Learning Step/Activity requirements. (ELO D.2)

At the completion of this lesson, you [the student] will:

Action:	Crossing Danger Areas

Safety Requirements

Prior to the start of any exercise, students must receive thorough briefings on safety, medical, and environmental hazards.

- The Chief Instructor (CI) of PLDC at each NCOA will conduct a safety risk assessment and a safety briefing as appropriate.
- Fluid replacement policy for warm weather training (Average acclimated soldier wearing BDU, Hot Weather).

The Army reviewed its policy for warm weather training as the result of a soldier's death and other instances of soldier hospitalization during 1997. The determination was that these soldiers suffered from over-hydration. The revised fluid replacement chart (below) describes the revised amounts of fluid replacement and work/rest cycles for acclimatized soldiers undergoing training. Of particular note is the fact that the revised maximum **hourly** fluid intake should **NOT** exceed 1.25 quarts, and the revised maximum daily fluid intake should **NOT** exceed 12 Liters.

Heat Category	WBGT Index, °F	Easy Work		Moderate Work		Hard Work	
		Work /Rest	Water Intake, Qt/hr	Work /Rest	Water Intake, Qt/hr	Work /Rest	Water Intake Qt/hr
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3 Yellow	85-87.9	NL	3/4	40/20 min	3/4	30/30 min	1
4 Red	88-89.9	NL	3/4	30/30 min	3/4	20/40 min	1
5 Black	>90	50/10 min	1	20/40 min	1	10/50 min	1

- The work/rest times and fluid replacement volumes will sustain performance and hydration for at least 4 hrs of work in the specified heat category. Individual water needs will vary + or – 1/4 qt/hr.
- NL = no limit to work time per hour. Rest means minimal physical activity (sitting or standing) and should be accomplished in shade if possible.
- **CAUTION: Hourly fluid intake should not exceed 1 1/4 quarts.**
- **Daily fluid intake should not exceed 12 Liters.**
- **NOTE:** MOPP gear adds 10^{O} F to WBGT Index.
- **NOTE:** Wearing Body Armor adds 5^{O} F to WBGT Index

Easy Work	Moderate Work	Hard Work
• Weapon maintenance. • Walking hard surface at 2.5 mph, ≤ 30 lb. load • Guard Duty. • Marksmanship Training. • Drill and Ceremony.	• Walking loose sand at 2.5 mph, no load. • Walking hard surface at 3.5 mph, < 40 lb. load. • Calisthenics. • Patrolling. • Individual movement techniques. e.g. low crawl, high crawl. • Defensive position construction.	• Walking loose sand at 2.5 mph with load. • Walking hard surface at 3.5 mph, ≥ 40 lb. load. • Field assaults.

Risk Assessment Level

Low

Environmental Considerations

Check with local environmental office for local requirements.

Evaluation

- AAR
- This PE is not a graded exercise.
- Some skills you learn during this PE, you will apply during the tactical leadership evaluations conducted during the STX.

Instructional Lead-In

This PE is a culmination of all that you have learned to this point of this lesson plan "conduct movement." You will lead and participate in a walk through to cross a danger area, using the proper movement techniques and hand and arm signals to cross a danger area.

I will form you up into two fire teams to demonstrate and walk you through the procedures to cross a danger area:

Pay attention to my demonstrations. You may have to lead a team using these techniques during the STX. Ask questions as I guide you through this exercise.

Resource Requirements

Instructor Materials:
- SGL Materials--TSP

Student Materials:
NOTE: Issued to students during inprocessing.
- Advance sheet in Appendix D, pen or pencil and writing paper and any materials required by the NCOA's SOP.

Special Instructions

- The PE is not to train students to be infantrymen or to place unrealistic emphasis on tactics.
- Design the PE so that the crux of the exercise is to see how well students use the skills and knowledge they learned during the class.
- Conduct this exercise as a walk through.
- Upon completion of all walk throughs, provide some of the students with an oral OPORD/FRAGO for the squad to move. Based on the OPORD/FRAGO the SGL gives, the assigned squad leader must determine the movement technique and formation of the squad/team and move across the danger area.
- The intent of this PE is not to have the squad reach task proficiency but rather to have the students participate in collective training event.
- **NOTE:** The SGL must continuously evaluate and critique the students as they progress through the walk throughs.
- While mission accomplishment is important, the SGLs must place their emphasis on the students' ability to lead soldiers, think, reason, organize, and communicate, not mission accomplishment. Soldiers are to learn the basic execution of the task performed.
- Uniform/Equipment:

  - BDUs with field cap
  - LCE with two canteens of water.
  - M16s or Rubber M16 (Optional to perform this task).
  - Other uniform/equipment requirements IAW NCOA SOP.

- Student led AARs must occur whenever possible, followed by a cadre AAR to reinforce the learning process. Students and cadre may conduct these AARs at the conclusion of an event, when student leaders change, or at the end of the PE. SGLs should place their students in a relaxed posture for the AARs. This will aid in the learning process. An example of a relaxed posture is the students grounding their equipment. This of course depends on time available or the situation and is solely the SGL's call.

- Recommended sequence of events:

  - Students move outside.
  - One group walks through the PE while other groups observe.
  - Conduct an AAR.
  - Second group walks through the PE while other groups observe.
  - Conduct an ARR.
  - Repeat until all groups have run through the exercise.
  - Select some students to lead a squad. Provide them with an oral OPORD/FRAGO.
  - Tell the student to select the proper movement technique and formation, to move the squad out based on the orders, and to cross the danger area.
  - Conduct an AAR

Procedures

None.

Feedback Requirements

SGLs will conduct AARs frequently throughout the exercise.

This Appendix Contains

This Appendix contains the items listed in this table--

Student Handout 1

This student handout contains the Advance Sheet.

Student Handout 1

Advance Sheet

Lesson Hours

This lesson consists of 2 hours and 35 minutes of small group instruction, 25 minutes of demonstration, and 3 hours of practical exercises.

Overview

During this lesson you will learn some basic techniques and procedures used to employ a squad-sized element in combat. You will learn the basics of moving a squad/team--using arm-and-hand signals and using the appropriate movements techniques in the proper movement formations based on the tactical situation.

Learning Objective

Terminal Learning Objective (TLO).

Action:	Lead a team/squad in dismounted movement.
Conditions:	In a classroom environment culminating in a situational training exercise and given a team/squad of soldiers.
Standard:	Led a team/squad in a selected route while dismounted using different formations and movements with visual signals; enforced detection procedures; and crossed a danger area IAW FM 7-8, FM 21-60, FM 3- 25,26, STP 21-24 SMCT, STP 21-1-SMCT and FM 21-75.

ELO A Select a movement route using a map.
ELO B Demonstrate fire team and squad movement techniques while dismounted.
ELO C Participate in fire team and squad formations, movement of the formations, and proper hand signals to move the formation.
ELO D Perform actions at danger areas.
ELO E Enforce detection prevention measures.

Assignments

The student assignments for this lesson are:

- Study--Student Handouts (SH) -1, -3, -5, and -6.
- Read--SH-2, -4, and -7.

Bring to Class

You must bring the following materials to class:

- All reference material received.
- Pencil or pen and writing paper.
- LCE with two canteens of water.
- Field cap (soft cap).
- Other equipment as directed by NCOA SOP.

Note to Students

It is your responsibility to do the homework prior to class. We expect you to come to class prepared. You will participate in small group discussion. We expect you to participate in the discussion by providing information you learned from your study and your personal and observed experiences. Failure to study and read the assignments above will result in your inability to participate with the rest of the group. Not having your input affects the group's ability to discuss fully the information.

Student Handout 2

Extract from FM 3-25.26, Map Reading and Land Navigation,

This Student Handout Contains

This student handout contains 5 pages of extracted from FM 3-25,26, Chapter 11. Bring all reference materials to class.

Page	(Reading/Study) Requirement
SH-2-2 thru SH-2-5	Study Chapter 11, para 11-4 and 11-5.

CHAPTER 11

TERRAIN ASSOCIATION

Failure to make use of the vast amounts of information presented by the map and available to the eye on the ground reduces the chances for success in land navigation. The soldier who has repeatedly practiced the skills of identifying and discriminating among the many types of terrain and other features knows how these features are mapped. He can begin to visualize the shape of the land by studying the map, estimate distances, and perform quick resection from the many landmarks he sees is the one who will be at the right place to help defeat the enemy on the battlefield. This chapter tells how to orient a map with and without a compass, how to find locations on a map as well as on the ground, how to study the terrain, and how to move on the ground using terrain association and dead reckoning.

11-4. TACTICAL CONSIDERATIONS

Military cross-country navigation is intellectually demanding because it is imperative that the unit, crew, or vehicle survive and successfully complete the move in order to accomplish its mission. However, the unnecessary use of a difficult route makes navigation too complicated, creates more noise when proceeding over it, causes wear and tear on equipment and personnel, increases the need for and needlessly complicate recovery operations, and wastes scarce time. On receipt of a tactical mission, the leader begins his troop-leading procedures and makes a tentative plan. He bases the tentative plan on a good terrain analysis. He analyzes the considerations covered in the following mnemonics—OCOKA and METT-T.

a**. OCOKA**. The terrain should be analyzed for observation and fields of fire, cover and concealment, obstacles, key terrain, and avenues of approach.

(1) ***Observation and Fields of Fire***. The purpose of observation is to see the enemy (or various landmarks) but not be seen by him. Anything that can be seen can be hit. Therefore, a field of fire is an area that a weapon or a group of weapons can cover effectively with fire from a given position.

(2) ***Cover and Concealment***. Cover is shelter or protection (from enemy fire) either natural or artificial. Always try to use covered routes and seek cover for each halt, no matter how brief it is planned to be. Unfortunately, two factors interfere with obtaining constant cover. One is time and the other is terrain. Concealment is protection from observation or surveillance, including concealment from enemy air observation. Before, trees provided good concealment, but with modern thermal and infrared imaging equipment, trees are not always effective. When you are moving, concealment is generally secondary; therefore, select routes and positions that do not allow covered or concealed enemy near you.

(3) ***Obstacles***. Obstacles are any obstructions that stop, delay, or divert movement. Obstacles can be natural (rivers, swamps, cliffs, or mountains) or they may be artificial (barbed wire entanglements, pits, concrete or metal anti-mechanized traps) They can be readymade or constructed in the field. Always consider any possible obstacles along your movement route and, if possible, try to keep obstacles between the enemy and yourself.

(4) ***Key Terrain***. Key terrain is any locality or area that the seizure or retention of affords a marked advantage to either combatant. Urban areas that are often seen by higher headquarters as being key terrain because they are used to control routes. On the other hand, an urban area that is destroyed may be an obstacle instead. High ground can be key because it dominates an area with good observation and fields of fire. In an open area, a draw or wadi (dry streambed located in an arid area) may provide the only cover for many kilometers, thereby becoming key. You should always attempt to locate any area near you that could be even remotely considered as key terrain.

(5) ***Avenues of Approach.*** These are access routes. They may be the routes you can use to get to the enemy or the routes they can use to get to you. Basically, an identifiable route that approaches a position or location is an avenue of approach to that location. They are often terrain corridors such as valleys or wide, open areas.

b**. METT-T.** Tactical factors other than the military aspects of terrain must also be considered in conjunction with terrain during movement planning and execution as well. These additional considerations are mission, enemy, terrain and weather, troops, and time available.

(1) ***Mission.*** This refers to the specific task assigned to a unit or individual. It is the duty or task together with the purpose that clearly indicates the action to be taken and the reason for it—but not how to do it. Training exercises should stress the importance of a thorough map reconnaissance to evaluate the terrain. This allows the leader to confirm his tentative plan, basing his decision on the terrain's effect on his mission.

(a) Marches by foot or vehicle are used to move troops from one location to another. Soldiers must get to the right place, at the right time, and in good fighting condition. The normal rate for an 8-hour foot march is 4 kmph. However, the rate of march may vary, depending on the following factors:

- Distance.
- Time allowed.
- Likelihood of enemy contact.
- Terrain.
- Weather.
- Physical condition of soldiers.
- Equipment/weight to be carried.
- A motor march requires little or no walking by the soldiers, but the factors affecting the rate of march still apply.

(b) Patrol missions are used to conduct combat or reconnaissance operations. Without detailed planning and a thorough map reconnaissance, any patrol mission may not succeed. During the map reconnaissance, the mission leader determines a primary and alternate route to and from the objectives.

(c) Movement to contact is conducted whenever an element is moving toward the enemy but is not in contact with the enemy. The lead element must orient its movement on the objective by conducting a map reconnaissance, determining the location of the objective on both the map and the ground, and selecting the route to be taken.

(d) Delays and withdrawals are conducted to slow the enemy down without becoming decisively engaged, or to assume another mission. To be effective, the element leader must know where he is to move and the route to be taken.

(2) ***Enemy***. This refers to the strength, status of training, disposition (locations), doctrine, capabilities, equipment (including night vision devices), and probable courses of action that impact upon both the planning and execution of the mission, including a movement.

(3) ***Terrain and Weather***. Observation and fields of fire influence the placement of positions and crew-served weapons. The leader conducts a map reconnaissance to determine key terrain, obstacles, cover and concealment, and likely avenues of approach.

(a) Key terrain is any area whose control affords a marked advantage to the force holding it. Some types of key terrain are high ground, bridges, towns, and road junctions.

(b) Obstacles are natural or man-made terrain features that stop, slow down, or divert movement. Consideration of obstacles is influenced by the unit's mission. An obstacle may be an advantage or disadvantage, depending upon the direction of attack or defense. Obstacles can be found by conducting a thorough map reconnaissance and study of recent aerial photographs.

(c) Cover and concealment are determined for both friendly and enemy forces. Concealment is protection from observation; cover is protection from the effects of fire. Most terrain features that offer cover also provide concealment from ground observation. There are areas that provide no concealment from enemy observation. These danger areas may be large or small open fields, roads, or streams. During the leader's map reconnaissance, he determines any obvious danger areas and, if possible, adjusts his route.

(d) Avenues of approach are routes by which a unit may reach an objective or key terrain. To be considered an AA, a route must provide enough width for the deployment of the size force for which it is being considered. The AAs are also considered for the subordinate enemy force. For example, a company determines likely AAs for an enemy platoon; a platoon determines likely AAs for an enemy squad. Likely AAs may be either ridges, valleys, or by air. By examining the terrain, the leader determines the likely enemy AAs based on the tactical situation.

(e) Weather has little effect on dismounted land navigation. Rain and snow could possibly slow down the rate of march, that is all. But during mounted land navigation, the navigator must know the effect of weather on his vehicle. (See Chapter 12 for mounted land navigation.)

(4) ***Troops***. Consideration of your own troops is equally important. The size and type of the unit to be moved and its capabilities, physical condition, status of training, and types of equipment assigned all affect the selection of routes, positions, fire plans, and the various decisions to be made during movement. On ideal terrain such as relatively level ground with little or no woods, a platoon can defend a front of up to 400 meters. The leader must conduct a thorough map reconnaissance and terrain analysis of the area his unit is to defend. Heavily wooded areas or very hilly areas may reduce the front a platoon can defend. The size of the unit must also be taken into consideration when planning a movement to contact. During movement, the unit must retain its ability to maneuver. A small draw or stream may reduce the unit's maneuverability but provide excellent concealment. All of these factors must be considered.

(a) Types of equipment that may be needed by the unit can be determined by a map reconnaissance. For example, if the unit must cross a large stream during its movement to the objective, ropes may be needed for safety lines.

(b) Physical capabilities of the soldiers must be considered when selecting a route. Crossing a large swampy area may present no problem to a physically fit unit, but to a unit that has not been physically conditioned, the swampy area may slow or completely stop its movement.

(5) ***Time Available***. At times, the unit may have little time to reach an objective or to move from one point to another. The leader must conduct a map reconnaissance to determine the quickest route to the objective; this is not always a straight route. From point A to point B on the map may appear to be 1,000 meters, but if the route is across a large ridge, the distance will be greater. Another route from point A to B may be 1,500 meters—but on flat terrain. In this case, the quickest route would be across the flat terrain; however, concealment and cover may be lost.

11-5. MOVEMENT AND ROUTE SELECTION

One key to success in tactical missions is the ability to move undetected to the objective. There are four steps to land navigation. Being given an objective and the requirement to move there, you must know where you are, plan the route, stay on the route, and recognize the objective.

a**. Know Where You Are (Step 1)** You must know where you are on the map and on the ground at all times and in every possible way. This includes knowing where you are relative to—

- Your directional orientation.
- The direction and distances to your objective.
- Other landmarks and features.
- Any impassable terrain, the enemy, and danger areas.
- Both the advantages and disadvantages presented by the terrain between you and your objective.

This step is accomplished by knowing how to read a map, recognize and identify specific terrain and other features; determine and estimate direction; pace, measure, and estimate distances, and both plot and estimate a position by resection.

b**. Plan the Route (Step 2)** Depending upon the size of the unit and the length and type of movement to be conducted, several factors should be considered in selecting a good route or routes to be followed. These include—

- Travel time.
- Travel distance.
- Maneuver room needed.
- Trafficability.
- Load-bearing capacities of the soil.
- Energy expenditure by troops.
- The factors of METT-T.
- Tactical aspects of terrain (OCOKA)
- Ease of logistical support.
- Potential for surprising the enemy.
- Availability of control and coordination features.
- Availability of good checkpoints and steering marks.

In other words, the route must be the result of careful map study and should address the requirements of the mission, tactical situation, and time available. It must also provide for ease of movement and navigation.

(1) Three route-selection criteria that are important for small-unit movements are cover, concealment, and the availability of reliable checkpoint features. The latter is weighted even more heavily when selecting the route for a night operation. The degree of visibility and ease of recognition (visual effect) are the key to the proper selection of these features.

(2) The best checkpoints are linear features that cross the route. Examples include perennial streams, hard-top roads, ridges, valleys, railroads, and power transmission lines. Next, it is best to select features that represent elevation changes of at least two contour intervals such as hills, depressions, spurs, and draws. Primary reliance upon cultural features and vegetation is cautioned against because they are most likely to have changed since the map was last revised.

(3) Checkpoints located at places where changes in direction are made mark your **decision points**. Be especially alert to see and recognize these features during movement. During preparation and planning, it is especially important to review the route and anticipate where mistakes are most likely to be made so they can be avoided.

(4) Following a valley floor or proceeding near (not on) the crest of a ridgeline generally offers easy movement, good navigation checkpoints, and sufficient cover and concealment. It is best to follow terrain features whenever you can—not to fight them.

(5) A lost or a late arriving unit, or a tired unit that is tasked with an unnecessarily difficult move, does not contribute to the accomplishment of a mission. On the other hand, the unit that moves too quickly and carelessly into a destructive ambush or leaves itself open to air strikes also have little effect. Careful planning and study are required each time a movement route is to be selected.

c. **Stay on the Route (Step 3)** In order to know that you are still on the correct route, you must be able to compare the evidence you encounter as you move according to the plan you developed on the map when you selected your route. This may include watching your compass reading (dead reckoning) or recognizing various checkpoints or landmarks from the map in their anticipated positions and sequences as you pass them (terrain association) A better way is to use a combination of both.

d**. Recognize the Objective (Step 4)** The destination is rarely a highly recognizable feature such as a dominant hilltop or road junction. Such locations as this are seldom missed by the most inexperienced navigators and are often dangerous places for soldiers to occupy. The relatively small, obscure places are most likely to be the destinations.

(1) Just how does a soldier travel over unfamiliar terrain for moderate to great distances and know when he reaches the destination? One minor error, when many are possible, can cause the target to be missed.

(2) The answer is simple. Select a checkpoint (reasonably close to the destination) that is not so difficult to find or recognize. Then plan a short, fine-tuned last leg from the new *expanded objective* to the final destination. For example, you may be able to plan and execute the move as a series of sequenced movements from one checkpoint or landmark to another using both the terrain and a compass to keep you on the correct course. Finally, after arriving at the last checkpoint, you might follow a specific compass azimuth and pace off the relatively short, known distance to the final, pinpoint destination. This procedure is called *point navigation*. A short movement out from a unit position to an observation post or to a coordination point may also be accomplished

Student Handout 3

Extracts, FM 21-75, Aug 84, Combat Skills of the Soldier

This Student Handout Contains

This student handout contains 4 pages extracted from FM 21-75, Chapter 3. Bring all reference materials to class.

Pages	Reading Requirement
SH-3-2 thru SH-3-5	Read page 3-2 thru para 1, page 3-5.

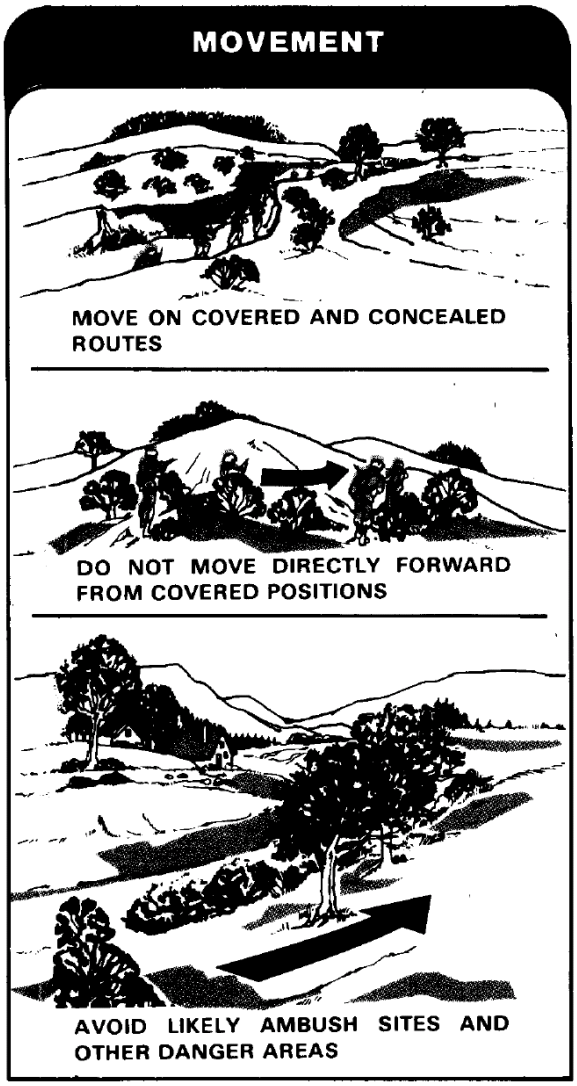
MOVEMENT TECHNIQUES

Your unit's ability to move depends on your movement skills and those of your fellow soldiers. Use the following techniques to avoid being seen or heard by the enemy:

- Camouflage yourself and your equipment.
- Tape your dog tags together and to the chain so they cannot slide or rattle. Tape or pad the parts of your weapon and equipment that rattle or are so loose that they may snag (the tape or padding must not interfere with the operation of the weapon or equipment). Jump up and down and listen for rattles.
- Wear soft, well-fitting clothes.
- Do not carry unnecessary equipment. Move from covered position to revered position (taking no longer than 3 to 5 seconds between positions).
- Stop, look, and listen before moving. Look for your next position before leaving a position.
- Look for covered and concealed routes on which to move.
- Change direction slightly from time to time when moving through tall grass.
- Stop, look, and listen when birds or animals are alarmed (the enemy may be nearby).
- Use battlefield noises, such as weapon noises, to conceal movement noises.
- Cross roads and trails at places that have the most cover and concealment (large culverts, low spots, curves, or bridges).
- Avoid steep slopes and places with loose dirt or stones.
- Avoid cleared, open areas and tops of hills and ridges.

METHODS OF MOVEMENT

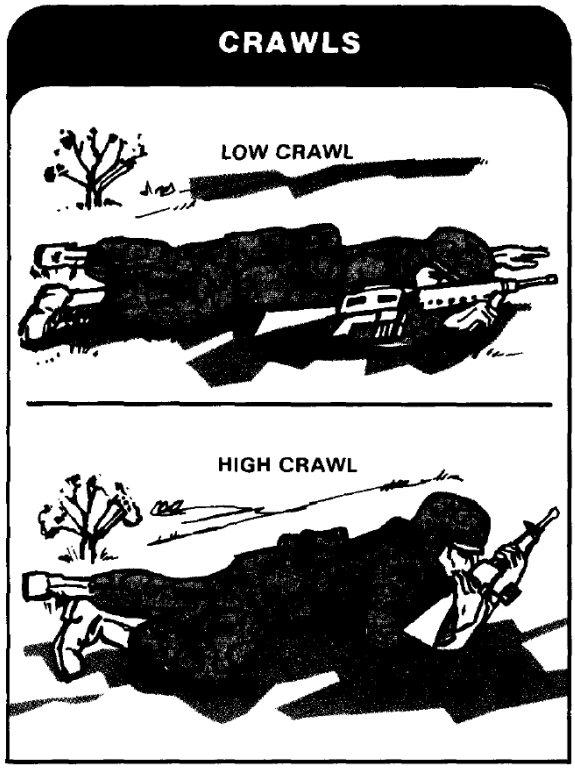
In addition to walking, you may move in one of three other methods — low crawl, high crawl, or rush.



The low crawl gives you the lowest silhouette. Use it to cross places where the conceal-

ment is very low and enemy fire or observation prevents you from getting up. Keep your body flat against the ground. With your firing hand, grasp your weapon sling at the upper sling swivel. Let the front handguard rest on your forearm (keeping the muzzle off the ground), and let the weapon butt drag on the ground.

To move, push your arms forward and pull your firing side leg forward. Then pull with your arms and push with your leg. Continue this throughout the move.



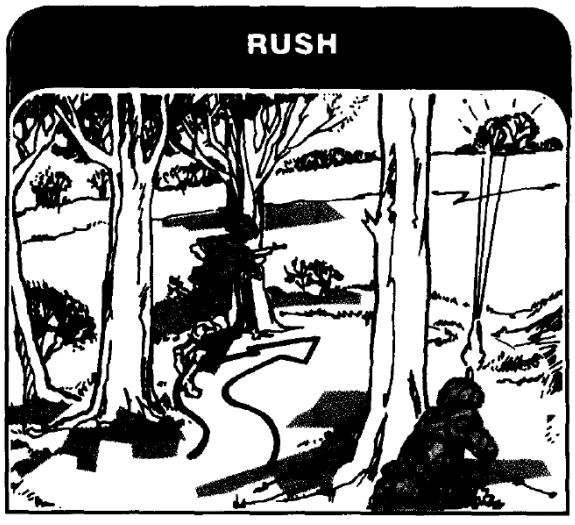
The **high crawl** lets you move faster than the low crawl and still gives you a low silhouette. Use this crawl when there is good concealment but enemy fire prevents you from getting up. Keep your body off the ground and resting on your forearms and lower legs. Cradle your weapon in your arms and keep its muzzle off the ground. Keep your knees well behind your buttocks so your body will stay low.

To move, alternately advance your right elbow and left knee, then your left elbow and right knee.

The **rush** is the fastest way to move from one position to another. Each rush should last from 3 to 5 seconds. The rushes are kept short to keep enemy machine gunners or riflemen from tracking you. However, do not stop and hit the ground in the open just because 5 seconds have passed. Always try to hit the ground behind some cover. Before moving, pick out your next covered and concealed position and the best route to it.

Make your move from the **prone position** as follows:

- Slowly raise your head and pick your next position and the route to it.
- Slowly lower your head.
- Draw your arms into your body (keeping your elbows in).
- Pull your right leg forward.
- Raise your body by straightening your arms.
- Get up quickly.
- Run to the next position.



When you are ready to stop moving, do the following:

- Plant both of your feet.
- Drop to your knees (at the same time slide a hand to the butt of your rifle).
- Fall forward, breaking the fall with the butt of the rifle.
- Go to a prone firing position.

If you have been firing from one position for some time, the enemy may have spotted you and may be waiting for you to come up from behind cover. So, before rushing forward, roll or crawl a short distance from your position. By coming up from another spot, you may fool an enemy who is aiming at one spot, waiting for you to rise.

When the route to your next position is through an open area, rush by zigzagging. If necessary, hit the ground, roll right or left, then rush again.

MOVING WITH STEALTH

Moving with stealth means moving quietly, slowly, and carefully. This requires great patience.

To move with stealth, use the following techniques:

- Hold your rifle at port arms (ready position).
- Make your footing sure and solid by keeping your body's weight on the foot on the ground while stepping.
- Raise the moving leg high to clear brush or grass.
- Gently let the moving foot down toe first, with your body's weight on the rear leg.
- Lower the heel of the moving foot after the toe is in a solid place.
- Shift your body's weight and balance to the forward foot before moving the rear foot.
- Take short steps to help maintain balance.

At night, and when moving through dense vegetation, avoid making noise. Hold your weapon with one hand, and keep the other hand forward, feeling for obstructions.

When going into a prone position, use the following techniques:

- Hold your rifle with one hand and crouch slowly.
- Feel for the ground with your free hand to make sure it is clear of mines, tripwires, and other hazards.
- Lower your knees, one at a time, until your body's weight is on both knees and your free hand.
- Shift your weight to your free hand and opposite knee.
- Raise your free leg up and back, and lower it gently to that side.
- Move the other leg into position the same way.
- Roll quietly into a prone position.

Use the following techniques when crawling:

- Crawl on your hands and knees. Hold your rifle in your firing hand. Use your nonfiring hand to feel for and make clear spots for your hands and knees to move to.

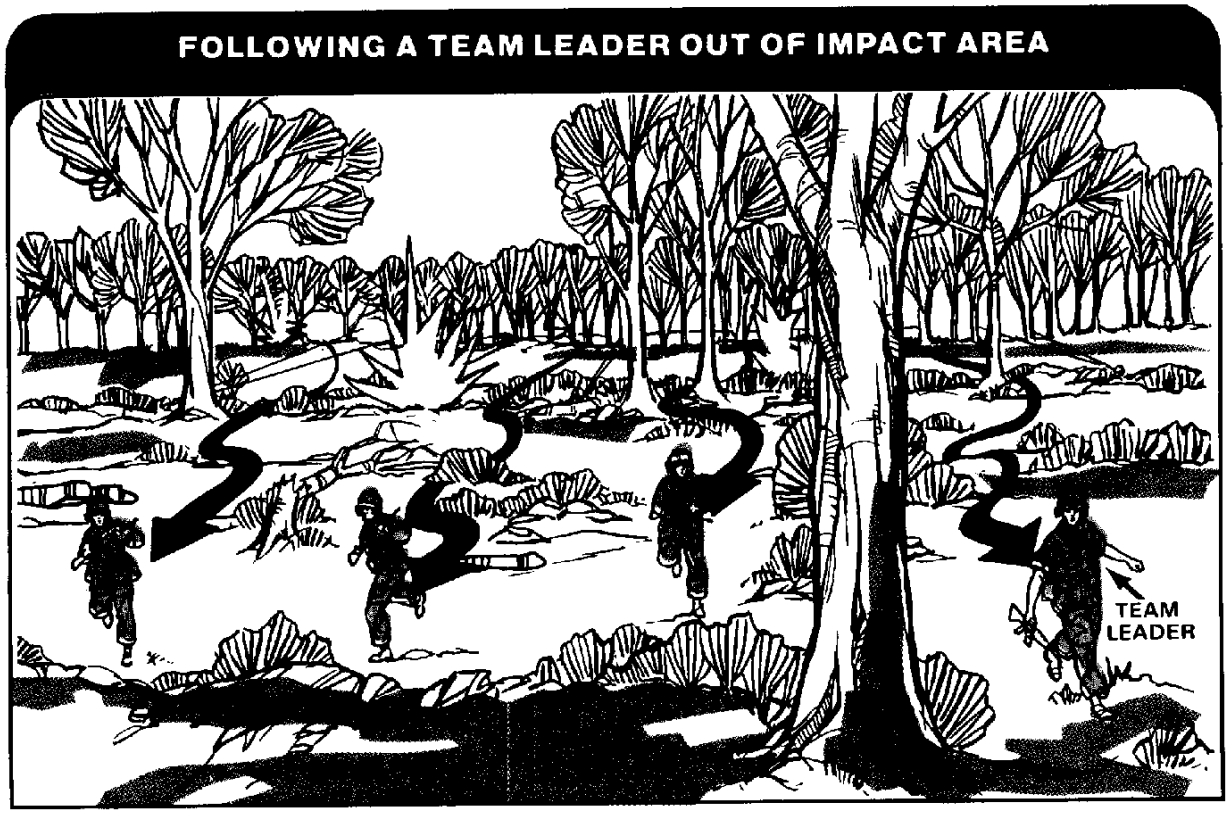
- Move your hands and knees to those spots, and put them down softly.

IMMEDIATE ACTIONS WHILE MOVING

This section furnishes guidance for the immediate actions you should take when reacting to enemy indirect fire and flares.

REACTING TO INDIRECT FIRE

If you come under indirect fire while moving, quickly look to your leader for orders. He will either tell you to run out of the impact area in a certain direction or will tell you to follow him. If you cannot see your leader, but can see other team members, follow them. If alone, or if you cannot see your leader or the other team members, run out of the area in a direction away from the incoming fire.



Student Handout 4

Extracts, FM 7-8, Apr 92, Infantry Rifle Platoon and Squad

This Student Handout Contains

This student handout contains 14 pages extracted from FM 7-8, Chapter 2. Bring all reference material to class.

Pages	Reading Requirement
SH-4-2 thru SH-4-5	Study Para 2-7 and 2-8.
SH-4-5 thru SH-4-14	Study Para 2-10.
SH-4-15	Study Para 2-15.

Section III. MOVEMENT

This section discusses formations, movement techniques, and actions during movement for infantry platoons and squads.

2-7. FIRE TEAM FORMATIONS

Formation are arrangements of elements and soldiers in relation to each other. Squads use formations for control flexibility and security. Leaders choose formations based on their analysis of the factors of METT-T. Figure 2-6, compares formations. Leaders are up front in formations. This allows the fire team leader to lead by example, "Follow me and do as I do." All soldiers in the team must be able to see their leader.

MOVEMENT FORMATIONS	WHEN NORMALLY USED	CHARACTERISTICS			
		CONTROL	FLEXIBILITY	FIRE CAPABILITIES/ RESTRICTIONS	SECURITY
FIRE TEAM WEDGE	BASIC FIRE TEAM FORMATION	EASY	GOOD	ALLOWS IMMEDIATE FIRES IN ALL DIRECTIONS	GOOD
FIRE TEAM FILE	CLOSE TERRAIN, DENSE VEGETA-TATION, LIMITED VISIBILITY CONDITIONS	EASIEST	LESS FLEXIBLE THAN THE WEDGE	ALLOWS IMMEDIATE FIRES TO THE FLANKS. MASK MOST FIRE TO THE REAR	LEAST

a. **Wedge.** The wedge is the basic formation for the fire team. The interval between soldiers in the wedge formation is normally 10 meters. The wedge expands and contracts depending on the terrain. When rough terrain, poor visibility, or other factors make control of the wedge difficult, fire teams modify the wedge. The normal interval is reduced so that all team members can still see their team leader and the team leaders can still their squad leader. The sides of the wedge can contract to the point where the wedge resembles a single file. When moving in less rugged terrain, where control is easier, soldiers expand or resume their original positions. (Figure 2-4)

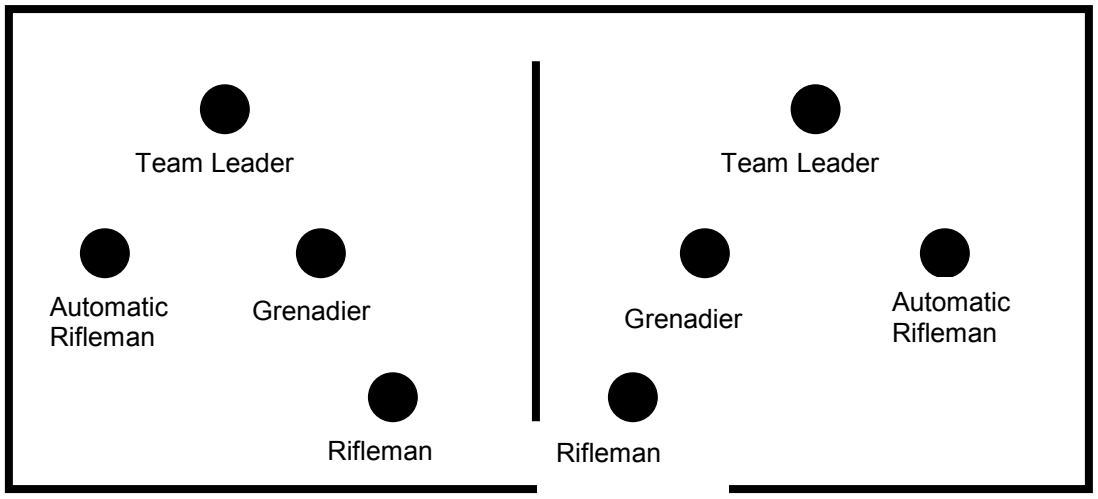


Figure 2-4. Fire team wedge

b. **File.** When the terrain precludes use of the wedge, fire teams use the file formation (Figure 2-5)

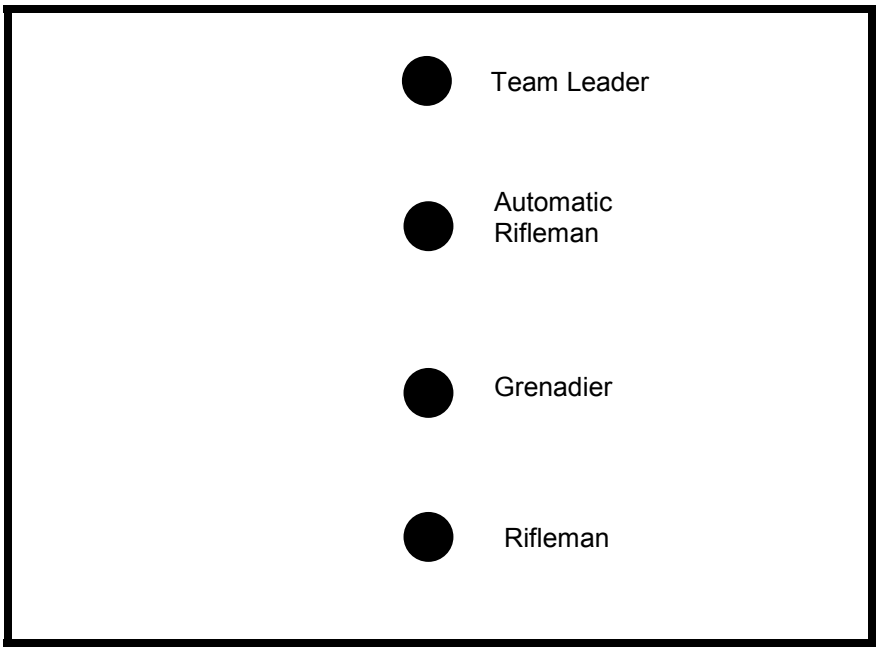


Figure 2-5. Fire team file

2-8. SQUAD FORMATIONS

Squad formations describe the relationships between fire teams in the squad. They include the squad column and squad line. A comparison of the formations is in Figure 2-10.

MOVEMENT FORMATIONS	WHEN NORMALLY USED	CHARACTERISTICS			
		CONTROL	FLEXIBILITY	FIRE CAPABILITIES/ RESTRICTIONS	SECURITY
SQUAD COLUMN	SQUAD PRIMARY FORMATION	GOOD	FACILITATES MANEUVER GOOD DISPERSION LATERALLY AND IN DEPTH	ALLOWS LARGE VOLUME OF FIRE TO THE FLANK-- LIMITED VOLUME TO THE FRONT	ALL-ROUND
SQUAD LINE	WHEN MAXIMUM FIRE POWER IS REQUIRED TO THE FRONT	NOT AS GOOD AD SQUAD COLUMN	LIMITED MANEUVER CAPABILITY (BOTH FIRE TEAMS COMMITTED)	ALLOWS MAXIMUM IMMEDIATE FIRE TO THE FRONT	GOOD TO THE FRONT LITTLE TO THE FLANKS AND REAR
SQUAD FILE	CLOSE TERRAIN VEGETATION, LIMITED VISIBILITY CONDITIONS	EASIEST	MOST DIFFICULT FORMATION FROM WHICH TO MANEUVER	ALLOWS IMMEDIATE FIRE TO THE FLANK MASKS MOST FIRE TO THE FRONT AND REAR	LEAST

Figure 2-10

a. **Squad Column.** The squad column is the squad's most common formation. It provides good dispersion laterally and in depth without sacrificing control, and facilitates maneuver. The lead fire team is the base fire team. When the squad moves independently or as the rear element of the platoon, the rifleman in the (rail fire team provides rear security (Figure 2-7)

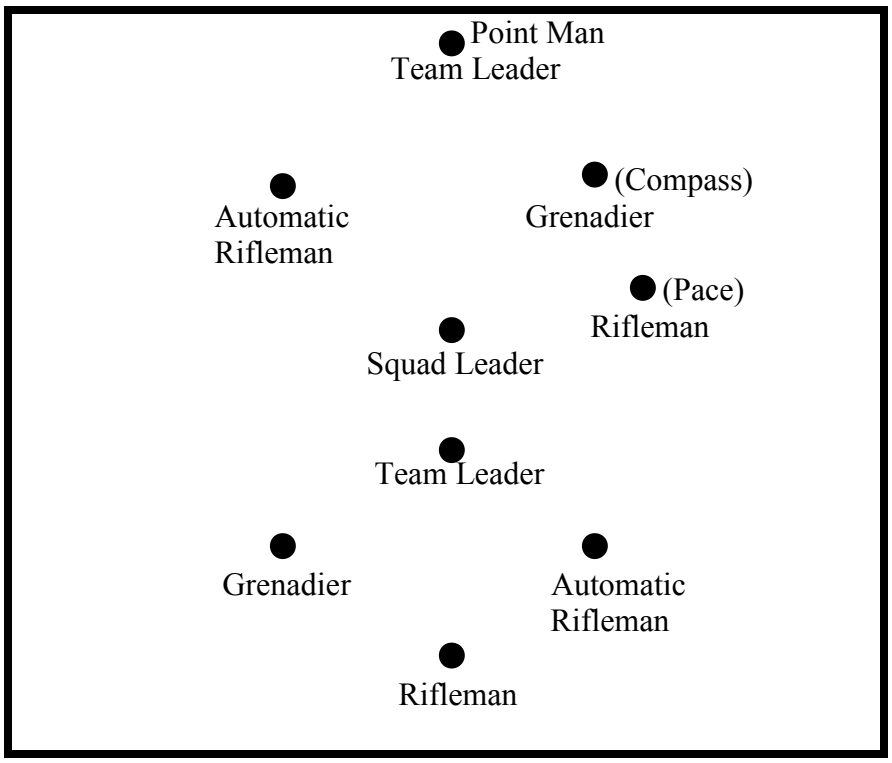


Figure 2-7. Squad column with fire teams in column

b. **Squad Line.** The squad line provides maximum firepower to the front (Figure 2-8). When a squad is acting as the base squad, the fire team on the right is the base fire team.

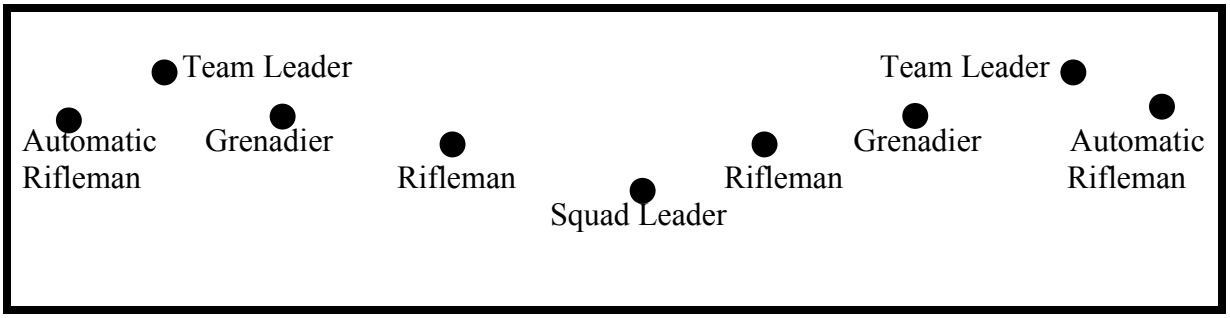


Figure 2-8. Squad line

c. **Squad File.** When not traveling in a column or line, squads travel in file. The squad file has the same characteristics as the fire team file. If the squad leader desires to increase his control over the formation, exert greater morale presence by leading from the front, and be immediately
available to make key decisions, he will move forward to the first or second position. Additional control over the rear of the formation can be provided by moving a team leader to the last position. (Figure 2-9.)

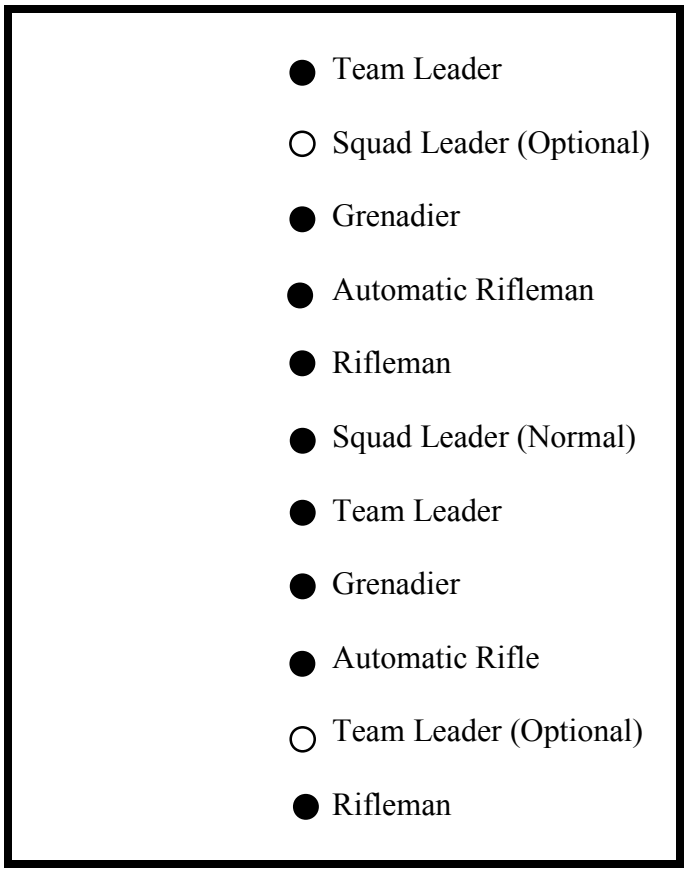


Figure 2-9, Squad file

2-10. MOVEMENT TECHNIQUES

A movement technique is the manner a platoon uses to traverse terrain. There are three movement techniques: traveling, traveling overwatch, and bounding overwatch. The selection of a movement technique is based on the likelihood of enemy contact and the need for speed. Factors to consider for each technique are control, dispersion, speed, and security (Figure 2-18). Movement techniques are not fixed formations. They refer to the distances between soldiers, teams, and squads that vary based on mission, enemy, terrain, visibility, and any other factor that affects control. Soldiers must be able to see their fire team leader. The squad leader must be able to see his fire team leaders. The platoon leader should be able to see his lead squad leader. Leaders control movement with arm-and-hand signals. They use radios only when needed. Any of the three movement techniques (traveling, traveling overwatch, bounding overwatch) can be used with any formation.

MOVEMENT TECHNIQES	WHEN NORMALLY USED	CHARACTERISTICS			
		CONTROL	DISPERSION	SPEED	SECURITY
TRAVELING	CONTACT NO LIKELY	MORE	LESS	FASTEST	LEAST
TRAVELING OVERWATCH	CONTACT POSSIBLE	LESS	MORE	SLOWER	MORE
BOUNDING OVERWATCH	CONTACT EXPECTED	MOST	MOST	SLOWEST	MOST

Figure 2-18. Movement techniques and characteristics

a. **Techniques of Squad Movement.** The platoon leader determines and directs which movement technique the squad will use.

(1) ***Traveling.*** Traveling is used when contact with the enemy is not likely and speed is needed (Figure 2-19).

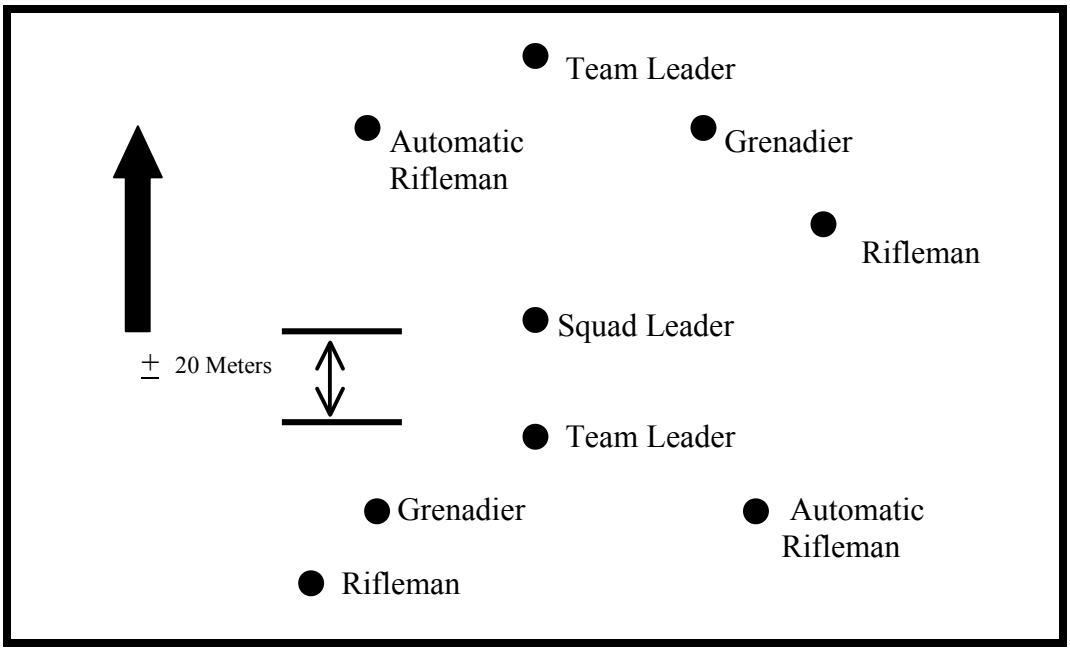


Figure 2-19. Squad traveling

(2) ***Traveling overwatch.*** Traveling overwatch is used when contact is possible (Figure 2-20). Attached weapons move near the squad leader and under his control so he can employ them quickly.

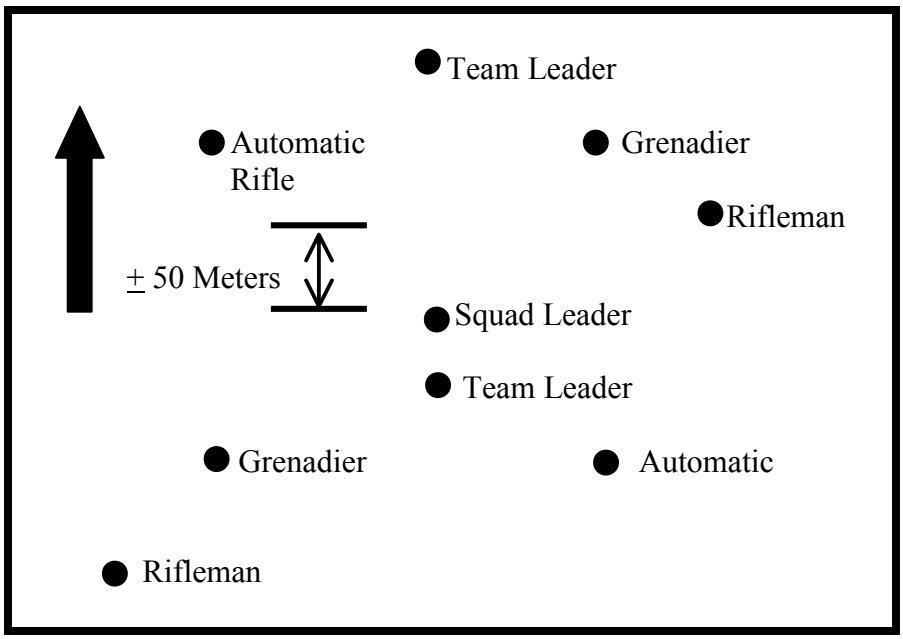


Figure 2-20. Squad traveling overwatch

(3) ***Bounding overwatch.*** Bounding overwatch is used when contact is expected, when the squad leader feels the enemy is near (movement, noise, reflection, trash, fresh tracks, or even a hunch), or when a large open danger area must be crossed.

(a) The lead fire team overwatches first. Soldiers scan for enemy positions. The squad leader usually stays with the overwatch team. (Figure 2-21).

TEAM LEADER SQUAD LEADER TEAM LEADER

Alpha Team saw movement in the trees one hundred meters to the right front, but we can't see it now.

Alpha Team, overwatch from where you are now. Be sure your men can shoot into the trees where your saw movement.

Bravo Team bound around to the right, through the brush along side of the stream until you get to that big rock about seventy-five meters away. Overwatch from there. Be read to shoot into the woods where movement was seen. I'll be in the overwatch while your move. Signal when you are in position. I'll come up with Alpha Team and give you your next orders.

Figure 2-21, Example of squad leader's order to bound.

(b) The trail fire team bounds and signals the squad leader when his team completes its bound and is prepared to overwatch the movement of the other team.
(c) Both team leaders must know if successive or alternate bounds will be used and which team the squad leader will be with. The overwatching team leader must know the route and destination of the bounding team. The bounding team leader must know his team's destination and route, possible enemy locations, and actions to take when he arrives there. He must also know where the overwatching team will be, and how he will receive his instructions. The cover and concealment on the bounding team's route dictates how its soldiers move.
(d) Teams can bound successively or alternately. Successive bounds are easier to control; alternate bounds can be faster. (Figure 2-22)

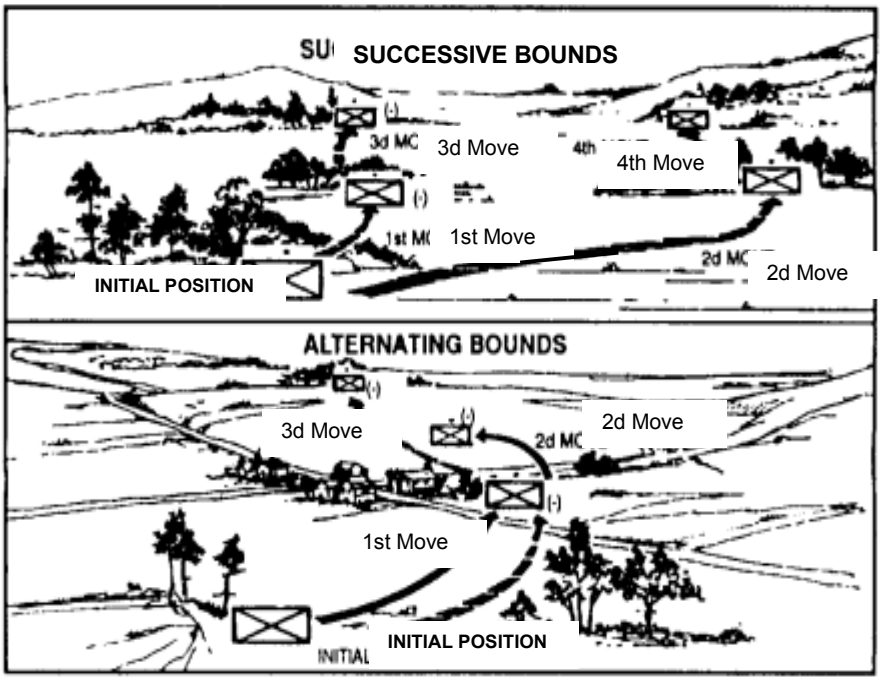


Figure 2-22. Squad successive and alternate bounds

b. **Techniques of Platoon Movement.** The platoon leader determines and directs which movement technique the platoon will use.

(1) ***Traveling.*** Traveling is used when enemy contact is not likely and speed is needed (Figure 2-23).

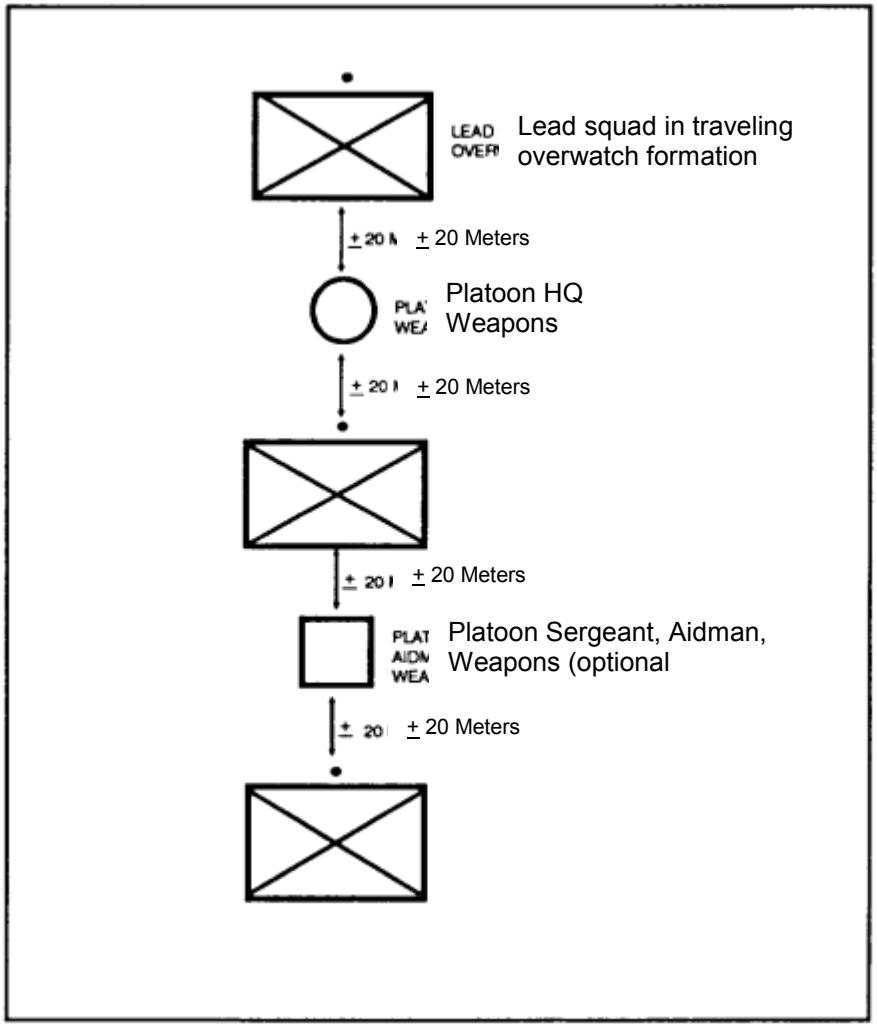


Figure 2-23. Platoon traveling

(2) ***Traveling overwatch.*** Traveling overwatch is used when contact is possible but speed is needed (Figure 2-24). The platoon leader moves where he can best control the platoon. The platoon sergeant travels with the trailing squad, though he is free to move throughout the formation to enforce security, noise and light discipline, and distances between squads. The lead squad uses traveling overwatch, and the trailing squads use traveling.

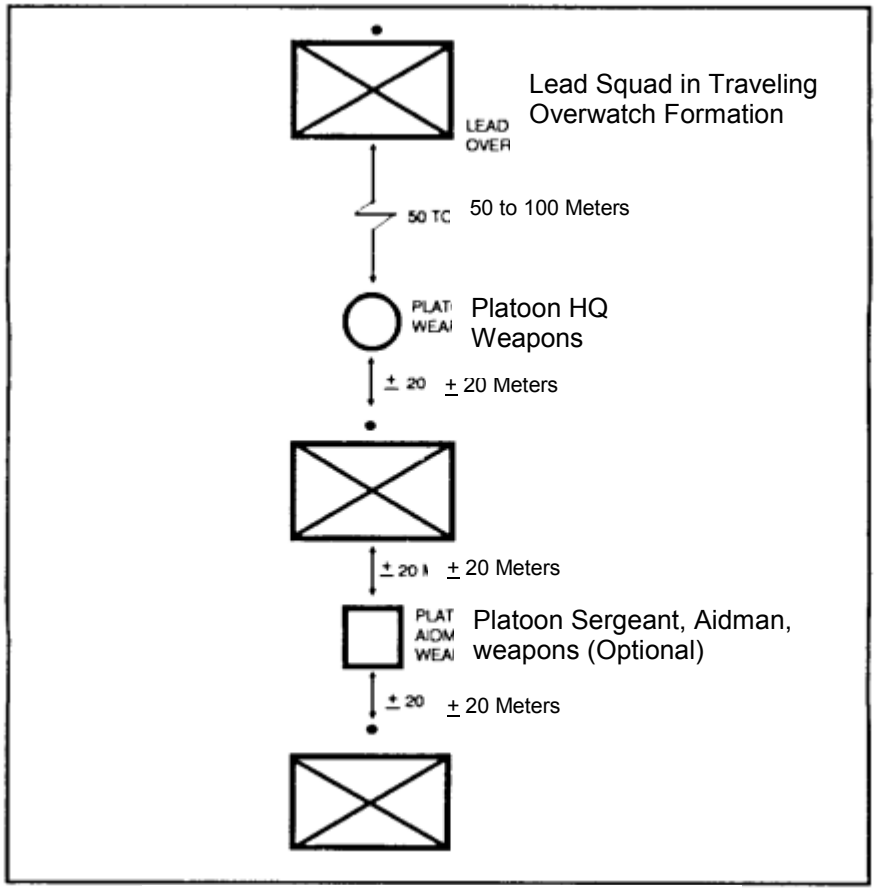


Figure 2-24. Platoon traveling overwatch.

(3) ***Bounding overwatch.*** Bounding overwatch is used when contact is expected (Figure 2-25). Platoons conduct bounding overwatch using successive or alternate bounds.

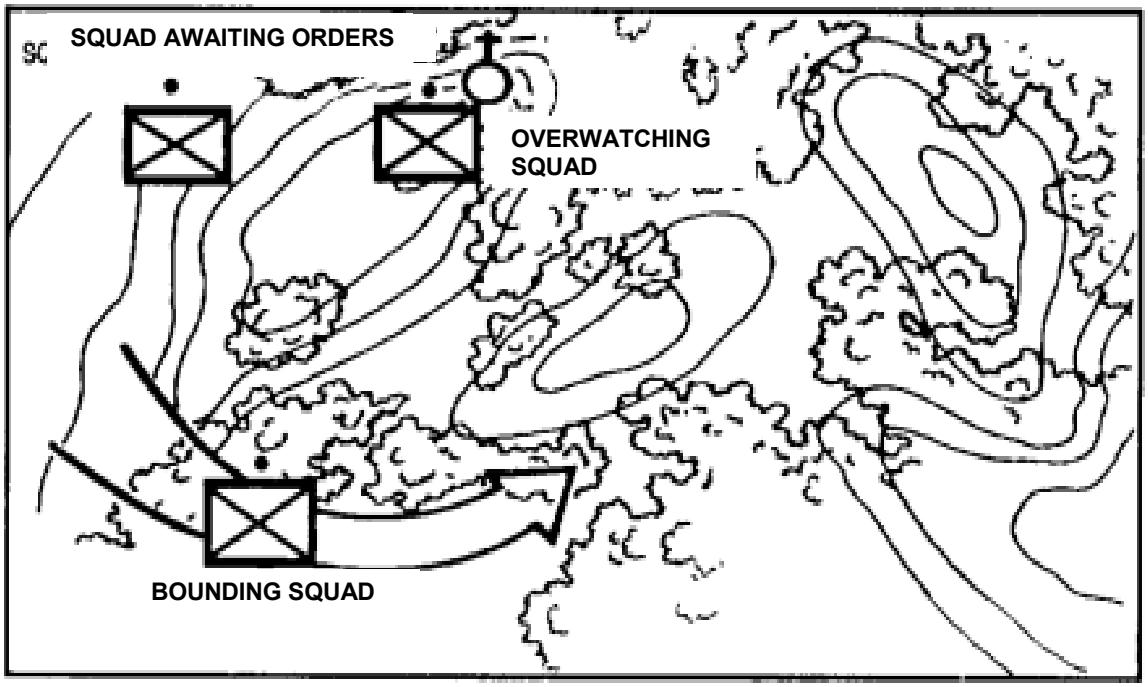


Figure 2-25. Platoon bounding overwatch

(a) *One squad bounding.* One squad bounds forward to a chosen position, then it becomes the overwatching element unless contact is made en route. The bounding squad can use either traveling overwatch, bounding overmatch, or individual movement techniques (low and high crawl, and short rushes by fire team or pairs)

(b) *One squad overwatching.* One squad overwatches the bounding squad from covered positions from which it can see and suppress likely enemy positions. Soldiers use sunning techniques to view their assigned sector. The platoon leader remains with the overmatching squad. Normally, the platoon's machine guns are located with the overwatching squad also.

(c) *One squad awaiting orders.* One squad is uncommitted and ready for employment as directed by the platoon leader. The platoon sergeant and the leader of the squad awaiting orders position themselves close to the platoon leader.

(d) *Considerations.* When deciding where to have his bounding squad go, a platoon leader considers--

- The requirements of the mission.
- Where the enemy is likely to be.
- The routes to the next overwatch position.
- The ability of an overwatching element's weapons to cover the bound.
- The responsiveness of the rest of the platoon.
- The fields of fire at the next overwatch position.

(e) *Instructions.* Before a bound, the platoon leader gives an order to his squad leaders from the overwatch position (Figure 2-26). He tells and shows them the following:

- The direction or location of the enemy (if known)
- The positions of the overwatching squad.
- The next overwatch position.
- The route of the bounding squad.
- What to do after the bounding squad reaches the next position.
- What signal the bounding squad will use to announce it is prepared to overwatch.
- How the squad will receive their next orders.

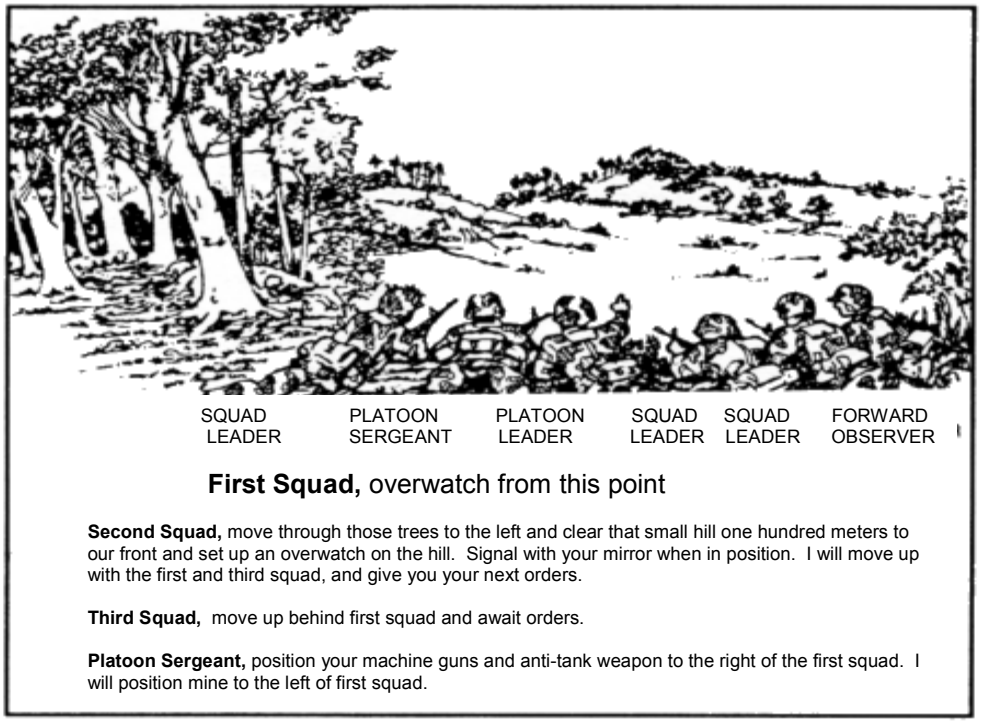


Figure 2-26. Example of platoon leader's order for bounding overwatch

(f) *Machine guns.* The machine guns are normally employed in one of two ways:

- Attach both guns to the overwatch squad(s)
- One machine gun with the overwatch squad and the other with the bounding squad. This technique requires the guns to move between squads as they leave the overwatch to join the bounding squad.

c. **Individual Movement Techniques.** Individual movement techniques include the high and low crawl and short rushes (three to five seconds) from one covered position to another. (See FM 21-75).

d. **Other Movement Situations.** The platoon can use other formations for movement.

(1) ***Movement with armored vehicles.*** For a detailed discussion of working with armored vehicles, see Section IX.

(2) ***Movement by water.*** The platoon avoids crossing water obstacles when possible. Leaders should identify weak or nonswimmers and pair them with a good swimmer in their squad.

(a) When platoons or squads must move into, through, or out of rivers, lakes, streams, or other bodies of water, they treat the water obstacle as a danger area. While on the water, the platoon is exposed and vulnerable. To offset the disadvantages, the platoon--

- Moves during limited visibility.
- Disperses.
- Camouflages thoroughly.
- Moves near the shore to reduce the chances of detection.

(b) When moving in more than one boat, the platoon--

- Maintains tactical integrity and self-sufficiency.
- Cross loads key soldiers and equipment.
- Makes sure that the radio is with the leader.

(c) If boats are not available, several other techniques can be used such as--

- Swimming.
- Poncho rafts.
- Air mattresses.
- Waterproof bags.
- A 7/16-inch rope used as a semisubmersible one-rope bridge or safety line.
- Water wings (made from a set of trousers)

(3) ***Tactical marches.*** Platoons conduct two types of tactical marches with the company. They are foot marches and motor marches.

(a) *Foot marches.* See FM 21-18.

(b) *Motor marches.* The platoon conducts motor marches like any other tactical movement. Special requirements may include--

- Protection. Sandbagging the bottom of the truck to protect the soldiers from mines.
- Observation. Removing bows and canvas to allow 360-degree observation and rapid dismount.
- Inspection. Inspecting vehicle and driver to ensure they are ready. Checking fuel level and driver's knowledge of the route, speed, and distance between vehicles.
- Loading. The platoon should load vehicles keeping fire team, squad, and platoon integrity. For example, fire teams and squads intact on the same vehicle and platoons in the same serial. Additionally, key leaders, weapons, and equipment should be cross loaded.
- Rehearsals. Rehearsing immediate action to enemy contact (near and far ambush, air attack) ensuring the driver knows what to do.
- Air guards. Posting air guards for each vehicle.

(4) ***Movement during limited visibility conditions.*** At night or when visibility is poor, a platoon must be able to function the same as during day. It must be able to control, navigate, maintain security, move, and stalk at night or during limited visibility.

(a) *Control.* When visibility is poor, the following methods aid in control:

- Selected personnel use of night vision devices.
- Leaders move closer to the front.
- The platoon reduces speed.
- Each soldier uses two small strips of luminous tape on the rear of his helmet to allow the soldier behind him to see.
- Leaders reduce the interval between soldiers and between units to make sure they can see each other.
- Leaders conduct headcounts at regular intervals and after each halt to ensure personnel accountability.

(b) *Navigation.* To assist in navigation during limited visibility, leaders use--

- Terrain association (general direction of travel coupled with recognition of prominent map and ground features)
- Dead reckoning (compass direction and specific distances or legs) At the end of each leg, leaders should verify their location.
- Movement routes that parallel identifiable terrain features.
- Guides or marked routes.
- GSRs to vector units to the proper location.
- Position-location devices.

(c) *Security.* For stealth and security in night moves, squads and platoons--

- Designate a point man to maintain alertness, the lead team leader to navigate, and a pace man to count the distance traveled. Alternate compass and pace men are designated.
- Allow no smoking, no lights, and no noise.
- Use radio-listening silence.
- Camouflage soldiers and equipment.
- Use terrain to avoid detection by enemy surveillance or night vision devices.
- Make frequent listening halts.
- Mask the sounds of movement with artillery fires.

(d) *Night walking.* Proficiency in night walking is gained through practice. A soldier walking at night looks ahead, then slowly lifting his right foot, he cases it forward about 6 inches to the front of the left foot. While easing his foot forward and keeping his toes pointed downward, the soldier feels for twigs and trip wires. He slowly places his foot on the ground. Confident of solid, quiet footing, the soldier slowly moves his weight forward, hesitates, then repeats the process with the other foot. This technique is slow and time-consuming.

(e) *Stalking.* Soldiers stalk to get as close as they can to an enemy sentry, patrol, or base. This is best described as a slow, crouching night walk. The soldier watches the enemy continuously. When close to the enemy, the soldier squints to help conceal light reflected by his eyes. He breathes slowly through his nose. If

the enemy looks in his direction, the soldier freezes. He takes advantage of the background to blend with shadows and to prevent glare or contrast. Soldiers move during distractions such as gusts of wind, vehicle movement, loud talking, or nearby weapons fire.

2-15b. Move to Defensive Positions. The platoon applies fundamentals of movement:

(1) Move on covered and concealed routes.

(2) Avoid likely ambush sites.

(3) Enforce camouflage, noise, and light discipline.

(4) Maintain all-round security, to include air guards.

(5) Use formations and movement techniques based on METT-T.

Student Handout 5

Extracts, FM 21-60, Sep 87, Visual Signals

This Student Handout Contains

This student handout contains 13 pages extracted from FM 21-60, Chapter 2. Bring all reference materials to class.

Pages	Reading Requirement
SH-5-2 thru SH-5-14	Read para 2-4 and 2-5

Strike the fist of one hand several times in rapid succession against the palm of the other hand.

Figure 2-28. OUT OF ACTION.

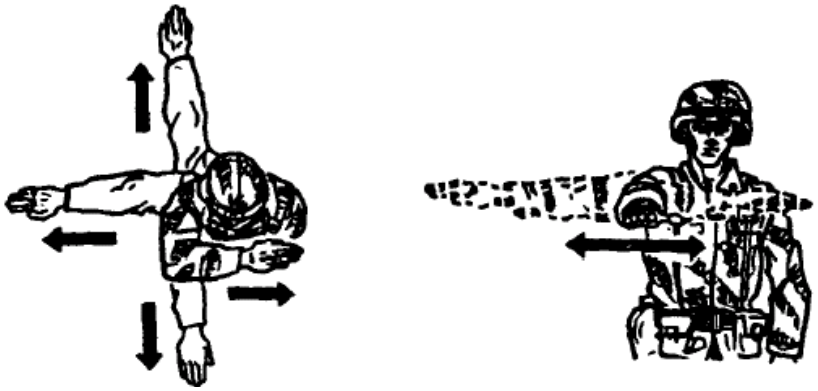
2-4. Signals for Combat Formations and Battle Drills

a. Signals, General (Figures 2-29 through 2-57).

(1) Leaders of dismounted units use arm-and-hand signals to control the movement of individuals, teams, and squads. These signals are used by infantry and also by combat support and combat service support elements organized for infantry missions (Figures 2-29 through 2-45).

(2) Leaders of mounted units use arm-and-hand signals to control individual vehicles and platoon movement. When distances between vehicles increase, flags (wrapped and tied) can be used as an extension of the arm to give the signals. From some vehicles (for example, Bradley, M2), the arm-and-hand signals will be distorted (Figures 2-46 through 2-50).

(3) Signals for drills are illustrated in Figures 2-51 through 2-57.



Extend either arm vertically overhead; wave the arm and hand to the front, left, right, and rear, with the palm toward the direction of each movement.

Figure 2-29. DISPERSE.

Raise the arm vertically overhead, palm to the front, and wave in large horizontal circles.

NOTE: Signal is normally followed by the signaler pointing to the assembly or rally site.

Figure 2-30. ASSEMBLE or RALLY.

Point toward person(s) or unit(s); beckon by holding the arm horizontally to the front, palm up, and motioning toward the body.

Figure 2-31. JOIN ME, FOLLOW ME, or COME FORWARD.

Simulate the movement of the right hand in removing the bayonet from the scabbard and fixing it on the rifle.

Figure 2-32. FIX BAYONETS.

Raise the fist to the shoulder; thrust the fist upward to the full extent of the army and back to shoulder level; do this rapidly several times.

Figure 2-33. INCREASE SPEED, DOUBLE TIME, or RUSH.

Extend the army horizontally sideward, palm to the front, and wave the arm slightly downward several times, keeping the arm straight. Do not move the arm above the horizontal.

NOTE: This is the same signal as SLOW DWN when directing vehicles (Figure 2-13) The difference in meaning must be understood from the context in which they are used.

Figure 2-34. QUICK TIME.

Hold the rifle in the ready position at shoulder level. Point the rifle in the direction of the enemy.

Figure 2-35. ENEMY IN SIGHT.

Extend the arm at a 45-degree angle from the side, above the horizontal, palm down, and then lower the arm to the side.

Figure 2-36. TAKE COVER.

Extend the arms downward and to the sides of an angle of 45-degrees below the horizontal, palms to the front.

Figure 2-37. WEDGE.

Raise the arms and extend them 45 degrees above the horizontal.

Figure 2-38. VEE.

Extend the arms parallel to the ground

Figure 2-39. LINE.

Raise one arm above the head and rotate it in a small circle.

Figure 2-40. COIL.

Extend the right arm and raise it 45 degrees above the shoulder. Extend the left arm 45 degrees below the horizontal and point toward the ground.

Figure 2-41. ECHELON LEFT.

Extend the left arm and raise it 45 degrees above the shoulder. Extend the right arm 45 degrees below the horizontal and point toward the ground.

Figure 2-42. ECHELON RIGHT.

Extend the arms so that upper arms are parallel to the ground and the forearms are perpendicular. Raise the arms so they are fully extended above the head. Repeat.

Figure 2-43. STAGGERED COLUMN.

Raise and extend the arm overhead. Move it to the right and left. Continue until the formation is executed.

Figure 2-44. COLUMN.

Extend the arms parallel to the ground. Bend the arms until the forearms are perpendicular. Repeat.

Figure 2-45 HERRINGBONE

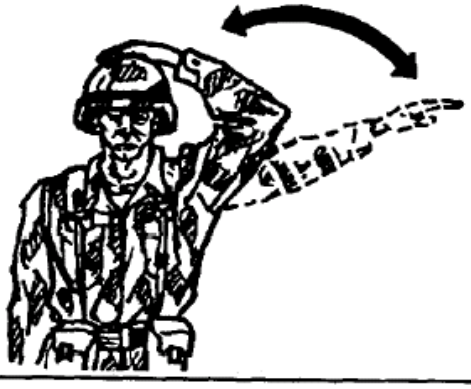
b. Mechanized Movement Techniques. Signals for movement techniques are used by mechanized units to indicate which manner of traversing terrain will be used by a unit (Figures 2-46 through 2-50).

Extend the arm overhead and swing it in a circle from the shoulder.

Figure 2-46. TRAVELING.

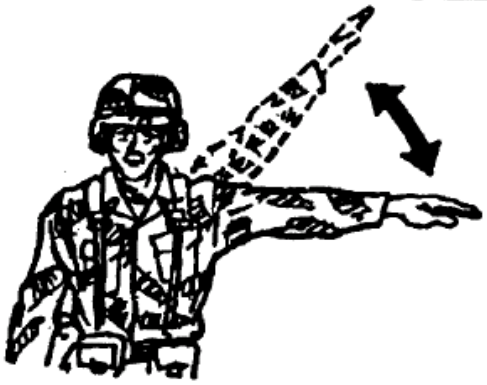
Extend both arms and raise them up and down.

Figure 2-47. TRAVELING OVERWATCH.



Extend one arm to a 45 degree angle. Bend the arms and tap the helmet. Repeat

Figure 2-48. BOUNDING OVERWATCH. COVER MY MOVE.



Extend the arm to the left and raise it up and down.

Figure 2-49. MOVE TO LEFT.

Extend the arm to the right and raise it up and down.

Figure 2-50 MOVE TO RIGHT

c. **Drills.** Drills are a rapid, reflexive response executed by a small unit. These signals are used to initiate drills (Figures 2-51 through 2-57).

Extend the left arm parallel to the ground. Bend the arm until the forearm is perpendicular. Repeat.

Figure 2-51. CONTACT LEFT.

Extend the right arm parallel to the ground. Bend the arm until the forear is perpendicular. Repeat.

Figure 2-52. CONTACT RIGHT.

Extend both arms parallel to the ground. Raise the right arm until it is overhead. Repeat.

Figure 2-53. ACTION LEFT.

Extend both arms parallel to the ground. Raise the left arm until is overhead. Repeat

Figure 2-54. ACTION RIGHT.

Raise the fist to shoulder level and thrust it several times in the desired direction of action

Figure 2-55. ACTION FRONT (RIGHT, LEFT or REAR), FIGHT ON FOOT, or ASSAULT FIRE (DISMOUNTED TROOPS).

Bend the arms with forearms at a 45 degree angle. The forearms are crossed. Repeat.

Figure 2-56. AIR ATTACK.

Extend the arms and fists. Bend the arms to the shoulders. Repeat

Figure 2-57. NUCLEAR, BIOLOGICAL, CHEMICAL ATTACK.

2-5. Patrolling Arm-and-Hand Signals

Patrolling is conducted by many type units. Infantry units patrol in order to conduct combat operations. Other units patrol for reconnaissance and security. Successful patrols require clearly understood communication signals among members of a patrol (Figures 2-58 through 2-63).

Point at the palm of one hand with the index finger of the other hand.

Figure 2-58. MAP CHECK.

Tap the heel of boot repeatedly with an open hand.

Figure 2-59. PACE COUNT.

Raise the hand to the ear with the thumb and little finger extended.

Figure 2-60. RADIOTELEPHONE OPERATOR FORWARD.

Tap the back of the helmet repeatedly with an open hand.

Figure 2-61. HEAD COUNT.

Draw the right hand, palm down, across the neck in a throat-cutting motion from left to right.

NOTE: This movement is the same as Figure 2-17, STOP ENGINES. The difference in meanings is understood from the context in which it is used.

Figure 2-62. DANGER AREA.

Raise the fist to head level.

Figure 2-63. FREEZE.

Student Handout 6

Extracts, FM 7-8, Infantry Rifle Platoon and Squad, April 92.

This Student Handout Contains

This student handout contains 7 pages extracted from FM 7-8, Chapter 2. Bring all reference material to class.

Pages	Reading Requirement
SH-6-2 thru SH-6-8	Study Chapter 2, para 2-11

CHAPTER 2

OPERATIONS

This chapter provides techniques and procedures used by infantry platoons and squads. These techniques are used throughout the planning and execution phases of platoon and squad tactical operations.

Section I. COMMAND AND CONTROL

This section discusses mission tactics, troop-leading procedure, combat orders, and techniques for preparing a platoon to fight. These topics pertain to all combat operations. Their application requires time. With more time, leaders can plan and prepare in depth. With less time, they must rely on previously rehearsed actions, battle drills, and standing operating procedures.

2-11. ACTIONS AT DANGER AREAS

A danger area is any place on a route where the leader's estimate process tells him that his platoon might be exposed to enemy observation, fire, or both. Platoons try to avoid danger areas. If a platoon must cross a danger area, it does so with great caution and as quickly as possible.

a. **Types of Danger Areas.** The following are some examples of danger areas and crossing procedures.

(1) ***Open areas***. Conceal the platoon on the near side and observe the area. Post security to give early warning. Send an element across to clear the far side. When cleared, cross the remainder of the platoon at the shortest exposed distance and as quickly as possible.

(2) ***Roads and trails.*** Cross roads or trails at or near a bend, a narrow spot, or on low ground.

(3) ***Villages.*** Pass villages on the downwind side and well away from them. Avoid animals, especially dogs, which might reveal the presence of the platoon.

(4) ***Enemy positions.*** Pass on the downwind side (the enemy might have scout dogs). Be alert for trip wires and warning devices.

(5) ***Minefields.*** Bypass minefields if at all possible--even if it requires changing the route by a great distance. Clear a path through minefields only if necessary.

(6) ***Streams.*** Select a narrow spot in the stream that offers concealment on both banks. Observe the far side carefully. Emplace near and far-side security for early warning. Clear the far side, then cross rapidly but quietly.

(7) ***Wire obstacles.*** Avoid wire obstacles (the enemy covers obstacles with observation and fire).

b. Crossing of Danger Areas. When the platoon crosses a danger area independently or as the lead element of a larger force, it must--

- Designate near- and far-side rally points.
- Secure the near side (right, left flanks, and rear security).
- Reconnoiter and secure the far side.
- Execute crossing the danger area.

(1) The platoon leader or squad leader decides how the unit will cross based on the time he has, the size of the unit, the size of the danger area, the fields of fire into the area, and the amount of security he can post. A small unit may cross all at once, in buddy teams, or one soldier at a time. A large unit normally crosses its elements one at a time. As each element crosses, it moves to an overwatch position or to the far-side rally point until told to continue movement.

(2) To maintain momentum, trailing platoons normally cross the danger area without conducting their own reconnaissance or establishing far-side security. The lead platoon conducts reconnaissance and maintains far-side security for the whole force.

NOTE: The secured area must be large enough to allow the full deployment of the remainder of the unit.

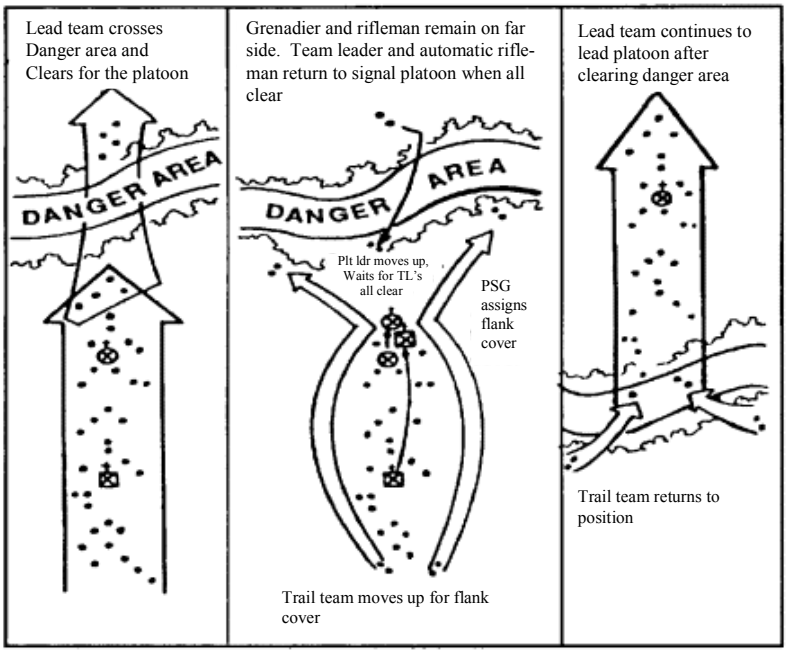


Figure 2-27. Crossing a danger area.

c. Crossing of linear Danger Areas (Platoon). The platoon crosses the danger area in the formation and location specified by the platoon leader. On the far side of the danger area, platoon personnel and equipment are accounted for. The platoon continues the mission. (Figure 2-27.)

(1) When the lead team signals "danger area" (relayed throughout the platoon), the platoon halts.

(2) The platoon leader moves forward, confirms the danger area, and determines what technique the platoon will use to cross. The platoon sergeant also moves forward to the platoon leader.

(3) The platoon leader informs all squad leaders of the situation and the near-side and far-side rally points.

(4) The platoon sergeant directs positioning of the near-side security (usually conducted by the trail squad). These two security teams may follow him forward when the platoon halts and a danger area signal is passed back.

(5) The platoon leader reconnoiters the danger area and selects the crossing point that provides the best cover and concealment.

(6) Near-side security observes to the flanks and overmatches the crossing.

(7) When the near-side security is in place, the platoon leader directs the far-side security team to cross the danger area.

(8) The far-side security team clears the far side.

(9) The far-side security team leader establishes an OP forward of the cleared area.

(10) The far-side security team signals to the squad leader that the area is clear. The squad leader relays the message to the platoon leader.

(11) The platoon leader selects the method the platoon will use to cross the danger area.

(12) The platoon quickly and quietly crosses the danger area.

(13) Once across the danger area, the main body begins moving slowly on the required azimuth.

(14) The near-side security element, controlled by the platoon sergeant, crosses the danger area where the platoon crossed. They may attempt to cover any tracks left by the platoon.

(15) The platoon sergeant ensures everyone crosses and sends up the report.

(16) The platoon leader ensures accountability and resumes movement at normal speed.

NOTE: The same principles stated above are used when crossing a smaller unit across a danger area.

d. **Crossing of Large Open Areas.** This is an area so large that the platoon cannot bypass due to the time to accomplish the mission (Figure 2-28). A combination of traveling overwatch and bounding overwatch is used to cross the open area. The traveling overwatch technique is used to save time. At any point in the open area where contact may be expected or once the squad or platoon comes within range of small-arms fire of the far side (about 250 meters), the squad or platoon moves using the bounding overwatch technique. Once beyond the open area, the squad or platoon reforms and continues the mission.

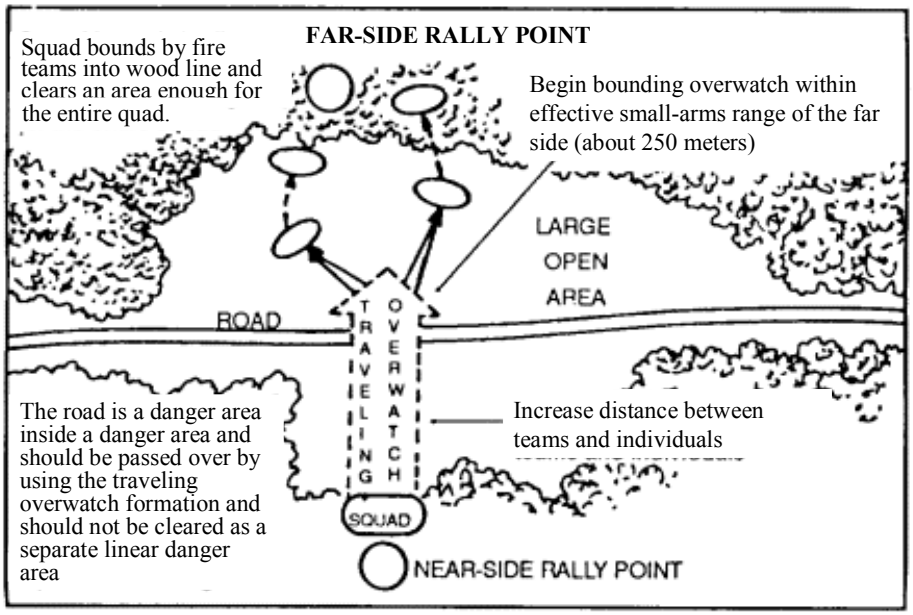


Figure 2-28. Crossing large open area.

e. Crossing of Small Open Areas. This is an open area small enough so that it may be bypassed in the time allowed for the mission. Two techniques can be used:

(1) ***Detour bypass method.*** By the use of 90-degree turns to the right or left, the squad or platoon moves around the open area until the far side is reached, then continues the mission. The pace count of the offset and return legs is not added to the distance of the planned route.

(2) ***Contouring around the open area.*** The leader designates a rally point on the far side with the movement azimuth, decides which side of the open area to contour around (after considering the distance, terrain, cover and concealment), and moves around the open area. He uses the wood line and vegetation for cover and concealment. When the squad or platoon arrives at the rally point on the far side, the leader reassumes the azimuth to the objective area and continues the mission (Figure 2-29).

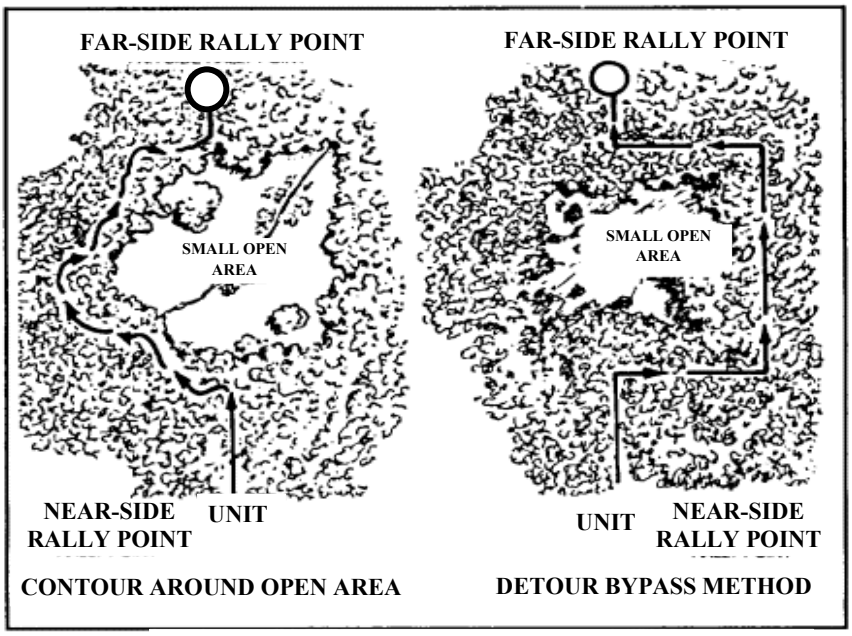


Figure 2-29. Cross a small open area.

f. Enemy Contact at Danger Areas. If the platoon makes enemy contact in or around the danger area, see Figure 2-30 for contact on far side, Figure 2-31 for contact on a road or trail, or Figure 2-32 for contact on near side.

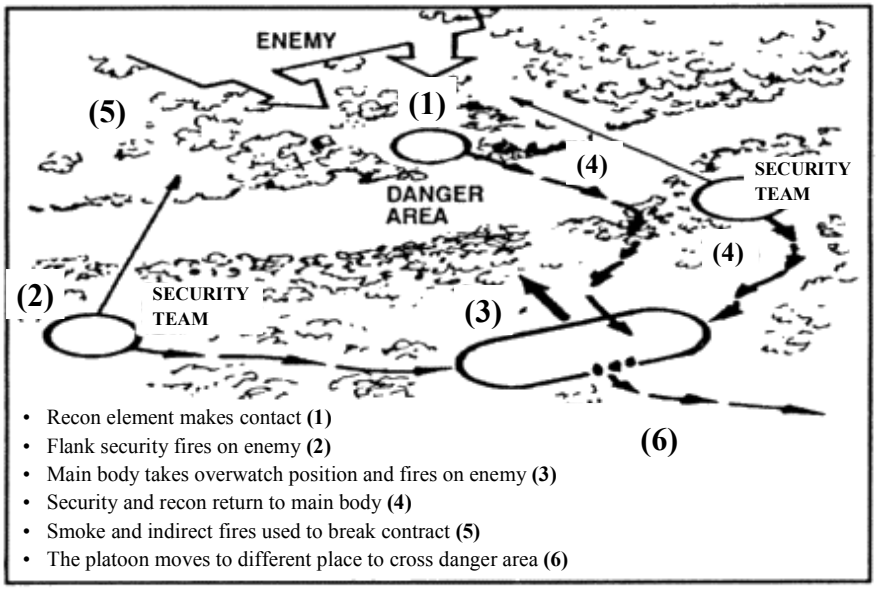


Figure 2-30. Enemy contact on far side.

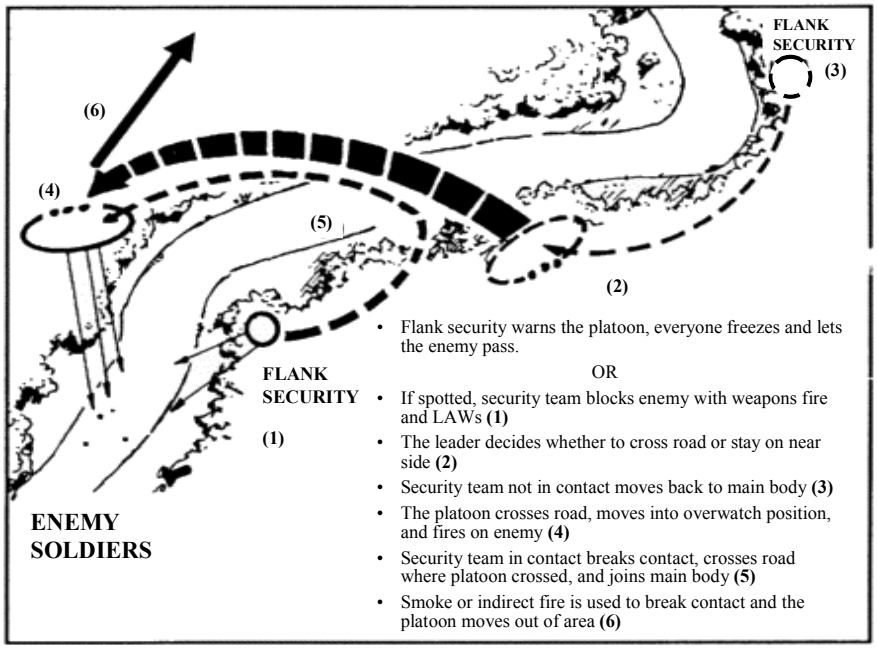


Figure 2-31. Enemy contact on road or trail.

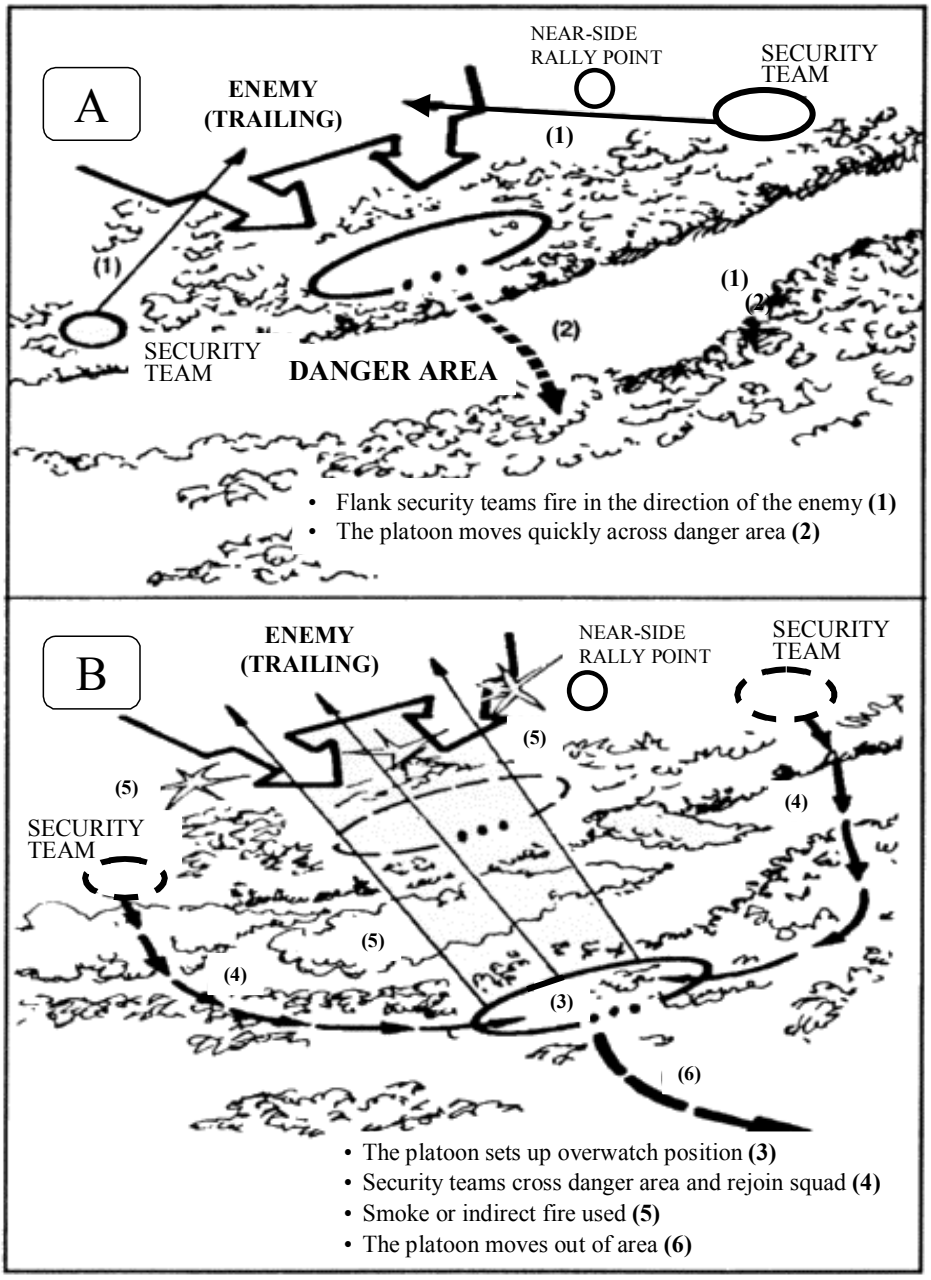


Figure 2-32. Enemy contact on near side.

NOTE: Squads react to contact the same as platoons

Student Handout 7

Extracts, STP 21-24-SMCT-1, 1 APR 03

This Student Handout Contains

This student handout contains 3 pages extracted from STP 21-24-SMCT, Task 1. Select a Route Using a Map. Bring all reference material to class.

Pages	Reading Requirement
SH-7-2 thru SH-7-4	Study Task 1.

APPENDIX C- LAND NAVIGATION SKILLS AND KNOWLEDGES

Land Navigation Skills and Knowledges
Supporting Skill Level 1 Land Navigation Tasks

1. Select a Movement Route Using a Map
2. Identify Topographic Symbols on a Military Map
3. Identify Terrain Features on a Map
4. Determine the Grid Coordinates of a Point on a Military Map
5. Determine a Magnetic Azimuth Using a Lensatic Compass
6. Determine the Elevation of a Point on the Ground Using a Map
7. Determine a Location on the Ground by Terrain Association
8. Measure Distance on a Map
9. Convert Azimuths
10. Orient a Map Using a Lensatic Compass
11. Orient a Map to the Ground by Map-Terrain Association
12. Locate an Unknown Point on a Map and on the Ground by Intersection
13. Locate an Unknown Point on a Map and on the Ground by Resection
14. Determine Direction without a Compass
15. Determine Azimuths Using a Protractor
16. Compute Back Azimuths

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1. Select a Movement Route Using a Map
2.

Conditions: Given an operation or fragmentary order, a 1:50, 000 scale military map and a compass.

Standards: Selected a route with the following characteristics:
1. Took advantage of maximum cover and concealment.
2. Ensured observation and field of fire for the overwatch or fire support elements.
3. Allowed positive control of all elements.
4. Accomplished the mission quickly without unnecessary or prolonged exposure to enemy fire.

Performance Steps

1. Select the route that makes the best use of terrain. Your platoon spends more time moving than fighting in combat. Because a moving unit usually contacts the enemy at a time and place of the enemy's choosing, you must use terrain to your best advantage. Proper use of terrain has two advantages:

a. Cover and concealment to protect the platoon during movement.
b. Maximum effectiveness of the platoon's weapons.

2. To properly use those advantages, you must understand the military aspects of terrain and be able to apply them to any given situation, whether it be a defense, a delay or a road march behind the forward edge of the battle area (FEBA).

a. The primary requirement for any type of movement on the battlefield is cover and concealment.

(1) Cover is any type of shielding from the effects of weapon fire, especially direct fire. You must take advantage of every ravine or depression in the ground to protect and cover your force, especially if you are forward of the FEBA. You must evaluate the terrain, the abilities of the enemy's weapons

systems, and the position of known or suspected enemy emplacement. Visualize a cross section of the terrain and determine where the enemy cannot place effective direct fire on your proposed route.

(2) Concealment is anything that hides or disguises your force. You must consider concealment from both air and ground observation. If you are mechanized, exhaust smoke or dust can reveal your unit to the enemy.

b. If you are moving in an area where contact with the enemy is expected, you must ensure that your proposed route can be covered by fire from your overwatch or fire support positions. Those positions must have good observation and fields of fire.

(1) Direct fire weapons must have good observation to fire known or suspected enemy positions along your movement route. You must have observation to control the maneuver of your elements, if they make contact. Consider the effects of smoke and dust from friendly and enemy fire.

(2) Select a route that gives your unit the best field of fire. Your machine guns and antitank weapons must have good fields of fire to be effective. They must be in a position to provide suppressive fires immediately. Using your crew-served weapons to overwatch your movement, they must be able to observe your route and fire in your support all the way to the objective. The overwatch positions that you select must have unobstructed fields of fire to the next overwatch position.

3. Select the route that provides the most favorable tactical advantage and meets the mission requirements. If enemy air is active or enemy ground forces are in the area of the route, you must take maximum advantage of cover and concealment. If speed of movement is critical, the route should be over the most easily negotiable terrain, avoiding difficult obstacles. The route should include movement from one easily distinguishable terrain feature to another. When ordered to move, you must check the terrain based on the above considerations and select the quickest and safest route.
4. Planning a route can be aided by the use of special purpose maps and aerial photographs. If those aids are available, use them to ensure that you have the most current information.
5. Map reconnaissance, however, is no substitute for ground reconnaissance. If time is available and the tactical situation permits, reconnoiter the route that you have to move over.

Evaluation Preparation: SETUP: In a field environment, provide the soldier with a 1:50,000-scale military map of the area and a compass, and issue him an oral or written operation order.

BRIEF SOLDIER: Tell the soldier to select a route of movement between two given points (marked on the map) where the likelihood of enemy contact is unknown. The soldier must select a route that offers the best cover and concealment, ensure the best observation and fields of fire for support elements, allow positive control of elements, and accomplish the mission without unnecessary or prolonged exposure to enemy fire.

Performance Measures	**GO**	**NO GO**
1. Made a map reconnaissance of the area that must be moved over.	___	___
2. Selected a route that offers:	___	___
a. Maximum cover.		
b. Maximum concealment.		
c. Good observation to fire at known or suspected enemy positions along movement route.		
d. Best fields of fire.		
e. Most favorable tactical advantage.		
f. Positive control of all elements.		

Evaluation Guidance: Score the soldier GO if all steps are passed. Score the soldier NO-GO if any steps are failed. If the soldier fails any steps, show him what was done wrong and how to do it correctly.

References

Required	**Related**
FM 7-7	
FM 7-8	

Student Handout 8

Extract, STP 21-1-SMCT-1, APR 03

This Student Handout Contains

This student handout contains 2 pages extracted from STP 21-1-SMCT, Task 071-331-0815, Practice Noise, Light, and Litter Discipline. Bring all reference material to class.

Pages	Reading Requirement
SH-8-2 thru SH-8-3	Read Task 071-331-0815.

Practice Noise, Light, and Litter Discipline
071-331-0815

Conditions: As a member of an element conducting a tactical mission.

Standards: Ensure that:
1. Noise was kept at a minimum.
2. No light was visible to the enemy.
3. The area was free of litter and other evidence of the unit's presence.

Performance Steps

1. Comply with noise discipline.
    a. Avoid all unnecessary vehicular and foot movement.
    b. Secure (with tape or other materials) metal parts (for example, weapon slings, canteen cups, identification [ID] tags) to prevent them from making noise during movement.
    c. Be careful not to restrict moving parts of weapons if doing so would prevent their operation.
    d. Talk only when necessary to conduct or explain operations.
    e. Use radios only when necessary, keeping the volume low so only you can hear the radio.

2. Comply with light discipline.
    a. Do not smoke except when concealed from enemy view.

Note: Smoking at night should be restricted, as the enemy can see and smell the smoke.

    b. Conceal flashlights and other light sources so that the light is filtered (for example, under a poncho).
    c. Cover anything that reflects light (for example, metal surfaces, vehicles, glass).
    d. Use all available natural concealment.
    e. Camouflage all vehicles and equipment.

3. Comply with litter discipline.
    a. Take all litter (empty food containers, empty ammunition cans or boxes, old camouflage) to established collection points when occupying a position.
    b. Carry all litter with you until you can dispose of it without leaving any trace when moving.

Evaluation Preparation: Setup: Schedule this exercise in conjunction with field maneuvers or field exercises or use defensive positions.

Performance Measures	**GO**	**NO GO**
1. Complied with noise discipline by:	___	___
a. Avoiding all unnecessary vehicular and foot movement.		
b. Securing metal parts, preventing them from making noise during movement.		
c. Being careful not to restrict moving parts of secured weapons, preventing operation.		
d. Talking only when necessary to conduct or explain operations.		
e. Using radios only when necessary, keeping the volume low so that only you can hear the radio.		
2. Complied with light discipline by:	___	___
a. Smoking only when concealed from enemy view.		
b. Concealing flashlights and other light sources so that the light is filtered.		
c. Covering anything that reflects light.		
d. Using all available natural concealment.		
e. Camouflaging all vehicles and equipment.		
3. Complied with litter discipline by:	___	___

a. Taking all litter to established collection points when occupying a position.

Performance Measures	**GO**	**NO GO**
b. Carrying all litter with you until you can dispose of it without leaving any trace when moving.		

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If the soldier scores NO-GO, show the soldier what was done wrong and how to do it correctly.

References

Required	**Related**
FM 7-8	